DOCUMENT RESUME

ED 398 312 UD 031 119

TITLE Reorienting Secondary Education in Asia and the Pacific.
INSTITUTION National Inst. for Educational Research, Tokyo (Japan).
PUB DATE Dec 95
NOTE 84p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Basic Skills; *Curriculum Development; *Educational Change; Educational Innovation; Educational Policy; Foreign Countries; International Education; Participative Decision Making; *Policy Formation; Public Policy; *School Restructuring; *Secondary Education
IDENTIFIERS *Asia Pacific Region; *Reform Efforts

ABSTRACT

The National Institute for Educational Research (NIER), Tokyo (Japan) and the Asia-Pacific Centre of Educational Innovation for Development (APEID) of the United Nations Scientific, Cultural, and Educational Organization (UNESCO) organized a regional seminar to explore issues related to secondary education in Asia and the Pacific and to formulate a framework for international cooperative programs and innovative educational development in the region. Economic and political issues are of increasing importance, but participating nations agree on the importance of promoting basic education for all, even in the face of economic constraints. The problems facing educatio in Asia and the Pacific are of such magnitude that reorienting education in a systematic and purposeful way is a necessity. The initial focus of Seminar participants toward this goal was on the curriculum. Although the needs of countries in the region vary, some common features of successful educational restructuring are: (1) policy objectives are realistically and clearly articulated; (2) key interest groups are consulted and involved; (3) the role of teachers is recognized and supported; (4) time frames are realistic; (5) adequate resources are provided; and (6) policy reforms are monitored and evaluated properly. Recommendations and matters for consideration are summarized. Annexes list seminar participants, summarize the reports submitted by 16 participating nations, and list working group members. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 398 312

NIER/UNESCO-APEID

Reorienting Secondary Education in Asia and the Pacific

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Ryo Watanabe
NIER
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

UD 031 119

National Institute for Educational Research (NIER)

BEST COPY AVAILABLE

NIER/UNESCO-APEID

Reorienting Secondary Education in Asia and the Pacific

Report of a Regional Seminar
[6 - 22 November 1995]

National Institute for Educational Research (NIER)
Tokyo, Japan
December 1995

© NIER 1995

Published jôintly by
the Section for International Co-operation
National Institute for Educational Research (NIER)
5-22 Shimomeguro 6-Chome, Meguro-Ku, Tokyo, Japan
Tel: +81 (Japan) 3 (Tokyo) 5721-5074
Fax: +81 (Japan) 3 (Tokyo) 5721-5517

RW/TN/YN/95/500

Table of Contents

Chapter 1: Introduction 1

Background 1
Objectives of the Seminar 2
Participation 2
Inauguration 2
Officers of the Seminar 3
Organization of the Seminar 3
Closing Session 3

Chapter 2: Key Issues Facing Secondary Education 4

Introduction 4
The Definition of Secondary Education 4
The Nature of Secondary Education 5
Demographic Trends 5
Emerging Social, Economic and Political Changes in the Asia-Pacific Region . . 6
Economic Issues and Secondary Education 7
Educational Response of Countries to these Emerging Social, Economic and Political Changes 10
Priority Issues Identified by Seminar Participants 11

Chapter 3: Reorienting Secondary Education 13

Introduction 13
Criteria for Curriculum Reform 14
Teaching - Learning Strategies 15
The Role of Secondary School Teachers 15
School Organization and Management Structure 17
Research-Based Educational Reform 18
Innovative Approaches to Improving Secondary Education 19
What Works Well? 23

Chapter 4: Recommendations and Matters for Consideration 25

Annex Ⅰ: List of Participants · · ·

Chapter 1: Introduction

Background

In recent years most countries in the Asia-Pacific region have made substantial progress towards the goal of universalizing primary education. Accordingly, more and more countries are now paying greater attention to the reorientation and expansion of their systems of secondary education. In many respects, secondary education is perhaps the weakest link in the education chain. Yet it is widely recognized that a high quality, productive and cost-effective secondary education system is vital for individual and national development.

Both the Asia-Pacific Centre of Educational Innovation for Development (ACEID), UNESCO Principal Regional Office for Asia and the Pacific (UNESCO-PROAP) and the National Institute for Educational Research (NIER), Japan, have a long standing interest in the reform and development of secondary education.

In 1994, the Asian Development Bank (ADB) commissioned ACEID to undertake a comprehensive, comparative regional review of secondary education in the Asia-Pacific region over the period of 1960-1990. The study examined alternative patterns of secondary education in the region and implications of these for the future development of that education.

Key matters addressed in the ADB study included issues about:

- the effect of alternative patterns of growth and development and different financing strategies on *access, participation and equity* of distribution of secondary education opportunities;
- the effect of alternative structures and patterns of delivery on the *internal efficiency* of institutions;
- the impact of alternative patterns of development on *external efficiency* and the contribution of secondary education to the labour market; and
- the impact of different development strategies on the *quality* of secondary education.

Other earlier studies undertaken by ACEID on secondary education include ***Reorientation and Reform of Secondary Education in Asia and the Pacific: A Status Report*** *(1989)*, ***Implementation of Reforms for Improving the Quality and Effectiveness of Secondary Education*** *(1989)*, ***Towards New Schemes of Secondary Education*** *(1992)*, *and*, ***Future Content in Science and Technology Education at the Secondary Level*** *(1993)*.

NIER has also a keen interest in exploring key aspects of the development of secondary education in the region, most recently producing important reports in 1991 ***(Towards Formulating Goals, Aims and Objectives in Secondary Education for the Twenty-First Century)***, *and in 1993* ***(Towards Research-Based Policy and Planning for Secondary Education)***.

In view of the importance of secondary education in the region, NIER decided to organize, jointly with ACEID, an APEID Regional Seminar on Secondary Education in Asia and the Pacific. The Seminar, which was held at NIER from 6 to 22 November 1995, was conducted within the framework of the Asia-Pacific Programme of Educational Innovation for Development (APEID).

Objectives of the Seminar

These were as follows:

1. To document the impact of recent policy initiatives designed to reorient and reform secondary education;

2. To identify innovative approaches to improve access to secondary education and raise the quality of secondary schooling;

3. To identify the national policy/planning infrastructure requirements and school support systems needed to ensure that secondary education reforms are effectively implemented and their impact is adequately evaluated;

4. To exchange views and share experiences on "secondary education for all" in the light of the focus areas identified;

5. To formulate a framework for a regional/national co-operative programme regarding innovative approaches to secondary education which builds on and strengthens existing co-operative frameworks;

6. To propose strategies for the effective implementation of the co-operative programme and means for monitoring the implementation of the programme;

7. To review the model of international comparative research used in the ADB/APEID study of secondary education as the basis for further work in this area; and

8. To examine ways in which a regional or sub-regional network in secondary education can be productively developed (and sustained), through APEID networks, with particular reference to the reform of curricula at the secondary school level.

Participation

Twenty participants from sixteen countries took part in the Seminar. They were from: Australia, Bangladesh, China, Indonesia, Iran, Japan, Lao PDR, Malaysia, Nepal, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand, Uzbekistan, and Viêt Nam. The UNESCO PROAP was represented by Dr. Rupert Maclean, Chief of ACEID. Dr. Phillip McKenzie from the Australian Council for Educational Research (ACER) was a Resource Person for the Seminar.

The list of participants is recorded at Annex I.

Inauguration

The Regional Seminar was inaugurated on 6 November 1995. The inaugural session was addressed by Mr. Yukihiko Hishimura, Director-General of NIER. Welcome messages from Mr. Hideki Hayashida, Director-General, Science and International Affairs Bureau, Ministry of Education, Science, Sports and Culture, Japan and Dr. Rupert Maclean, Chief of ACEID, UNESCO-PROAP, were also delivered.

Officers of the Seminar

The Seminar unanimously elected the following as Officers of the Seminar:

Chairperson;	Prof. Chandra L. V. Jayatilleke (Sri Lanka)
Vice-Chairpersons:	Dr. Wan Chik Rahmah Wan Din (Malaysia)
	Dr. Jae-Woong Kim (Republic of Korea)
Rapporteures:	Dr. A. Rex Kerrison (Australia)
	Dr. Leticia Peñano-Ho (Philippines)

Organization of the Seminar

Before and after the inaugural session, a briefing on the arrangements for the Seminar was given by Mr. Ryo Watanabe, Chief, Section for International Co-operation in Research. Dr. Phillip McKenzie then provided an overview of the major issues and concerns regarding secondary education in the region. Later in the Seminar programme, Dr. Maclean and Dr. McKenzie presented a summary of the major findings from the ADB-sponsored review of secondary education. These presentations are incorporated in Chapter 2 of this report.

During plenary sessions of the Seminar each country participant presented a major paper that discussed the present condition of secondary education in their country in terms of the Seminar's objectives. Summaries of the country reports were then prepared by participants according to a common structure. The country summaries are included at Annex II.

Following the detailed discussions generated by the country reports the participants identified a wide range of issues and problems facing secondary education in their nations. From these issues five key, inter-related questions were identified as the focus for Working Group deliberations and discussion.

These questions were discussed by the two Working Groups, and the results of their deliberations form Chapters 3 and 4 of this report. The two Working Groups had the following office bearers:

Group A:

Chairperson:	Dr. Wan Chik Rahmah Wan Din (Malaysia)
Rapporteur:	Dr. A. Rex Kerrison (Australia)

Group B:

Chairperson:	Dr. Jae-Woong Kim (Republic of Korea)
Rapporteur:	Dr. Leticia Peñano-Ho (Philippines)

The list of Working Group members appears at Annex III.

Closing Session

The draft final report was presented to the Seminar at the final working session on 22 November 1995, and was adopted with minor revisions.

Chapter 2: Key Issues Facing Secondary Education

Introduction

As countries achieve the universalization of primary education, they are turning their attention to an examination of other aspects of their education systems such as the restructuring of secondary education. Many feel that, in the past, a great deal of attention has been paid to the improvement of primary education while secondary education has been largely ignored. Secondary education is a weak link in the education chain in many countries even though an increasing number of children is going onto secondary education. Efforts are therefore being made to ensure that the education provided is an appropriate one which best meets the needs for relevance, quality and labor force requirements.

Since 1960 secondary education in Asia has expanded rapidly in response to an increasing demand for skilled manpower, economic growth and strong private demand. Different countries have chosen varied approaches to:

- developing the structure of secondary education;
- diversifying the curriculum;
- financing institutions and student support;
- stimulating the private ownership and management of institutions and regulating the mechanisms for management and decision making;
- structuring the role of teachers and teachers' professional development; and
- assessing student learning performance.

This chapter provides a brief overview of some of the key issues and concerns that have helped shape different national approaches to secondary education and which need to be considered in any future reorientation of the sector. Much of this material is based on the study of secondary education recently conducted by ACEID-UNESCO PROAP, Bangkok and CPSC, Manila, on behalf of the Asian Development Bank (ADB).

The chapter commences with a brief discussion of definition of secondary education.

The Definition of Secondary Education

Definitions vary between countries as to what they mean by secondary education. For example, in some countries secondary education occurs after six years of primary education, while in others it follows only four years of study at the primary level. In addition, in some places the second level of schooling consists of two stages: junior secondary and senior secondary.

As used in this report, secondary education encompasses the following two major forms.

General secondary education

This is a general or specialized education based on at least four years of previous primary education. It does not prepare students for any given trade or vocation. The schools are variously called high schools, secondary schools, and so on, and successful completion of the courses is a minimum requirement for

admission to a university. In some countries there are comprehensive schools which offer general, specialized and vocational training.

Vocational secondary education

This education is of a vocational or technical nature and prepares students directly for a trade or occupation. The schools are variously named technical, industrial, commercial, trade, agricultural, domestic science, forestry and so on. There are variations as to the type and duration of the training. Part-time and short-courses are common features.

In some countries teacher training is a part of secondary education, and those who complete this type of education enter the primary teaching profession.

It is important to note that variations in the definition and structure of secondary education necessitate caution in analyzing some of the country data presented throughout the report.

The Nature of Secondary Education

Secondary education is a challenging area for policy formation, planning and research. By definition, secondary education is a transitional stage between primary education and tertiary or post-secondary education. In contrast to these other two sectors of education, the purposes of secondary education are difficult to identify in precise terms and are often hotly contested by different interest groups in society. Secondary education is intended to build on and extend the basic knowledge and skills provided by primary schooling. But, in which direction should the building proceed? What is an appropriate balance between meeting the needs of the individual and the wider society? To what extent should secondary education be oriented towards preparing young people for university study or towards the demands of post-school employment? Are these various orientations necessarily in conflict with each other? Is it possible to combine academic rigor with vocational preparation? These are just some of the questions and tensions raised when possible reforms to secondary education are discussed.

The very nature of most secondary schools provides another difficulty when considering reform of the sector. Compared to primary schools, secondary schools are generally large, organizationally complex institutions that are strongly influenced by subject-matter specializations. These characteristics of secondary schools can make them relatively inaccessible places to parents and the community. These characteristics can also mean that the impact of any one policy change on secondary schools becomes more difficult to identify and evaluate. For example, because secondary teachers commonly teach several hundred different students each week, and students may have direct contact with 10 or so teachers, the relationship between teachers' behaviour and student learning is much harder to identify than, say, in a primary school where one teacher may be with the same group of students over the whole year.

Demographic Trends

The Asia-Pacific region is extremely diverse with respect to its geography, cultures, societies, economies and technologies. There are large land masses containing correspondingly large populations and there are countless islands with smaller isolated settlements. There are higher income expanding economies and lower income agrarian communities. There are mushrooming mega-cities and smaller village communities. The region contains 63 percent of the world's population and five of the most populous

countries on earth. Some countries have been catapulted into a new economic and technological age. Some others are on a launching pad about to be propelled into dynamic and technological growth with all the associated benefits, uncertainties, deficits and challenges that this will bring to their societies.

Some of the wide disparities that occur in Asia are particularly disturbing. Populations in South Asia, which contains over one billion people, have a life expectancy ten years lower than those living in East and Southeast Asia and a literacy rate of 42 percent compared to 72 percent. In fact, South Asia has the lowest literacy rate of all regions in the world. In addition, three-quarters of the world's illiterates live in the five most populous countries of Asia: China, India, Pakistan, Bangladesh and Indonesia.

Emerging Social, Economic and Political Changes in the Asia-Pacific Region

In looking at the development of secondary education in the Asia-Pacific region, it is important to locate such developments within a broader context. One context refers to the characteristics and development of the education system as a whole, since secondary schooling is but one link in the education chain and is affected by what happens at the primary and tertiary levels of education. It is also important to be aware of the socio-cultural context within which the education system operates, since education and schooling are not independent of what happens in the broader society. By examining the social trends one can see what is expected of education and schooling, in terms of such matters as the content of the curriculum.

The following social, economic and political changes in countries in the region have important implications for future patterns of education and schooling.

Income disparities: In 1960, the per capita GNP in the top 20 per cent of countries in the Asia-Pacific region was 30 times higher than that in the bottom 20 percent; by 1990 it was 60 times higher. The widening gap also occurs within countries.

Population problems: Rapid population growth remains a major problem for many countries in the region particularly in South Asia, since population increase is one of the main contributors to poverty. In addition, many of the gains made from schooling and education are outstripped by the rate of population increase.

Gender disparities: In many countries girls and women do not reap their share of the benefits of economic development. Such inequalities are also related to access and participation in the school system.

Materialism: Ethical and moral problems, and the lack of social discipline in compliance with the laws, have increasingly emerged, as many economies and societies have become more internationalized, with a greater emphasis on materialism. Attempts to seek wealth and prosperity through competition, pragmatism and individualism are often not in harmony with conventional Asian values which stress cooperation rather than competition, idealism rather than pragmatism, and an emphasis on the group rather than on the individual.

Health problems: Although the average life expectancy of people in many countries has improved markedly (in the LDC's the life expectancy has increased an average of 12.5 years over the past 20 years) as a result of health service expansion and progress in medical services, conditions of sickness have increasingly shifted from more conventional infectious diseases to modern diseases with more complex

conditions, such as cancer, drug-related diseases, heart disease, HIV/AIDS and stress-linked illnesses.

Deterioration of natural resources and environmental problems: With rapid industrialization there has been a substantial increase in environmental problems faced in the region such as carbon monoxide emissions, waste disposal, global warming, the cutting of the forests, soil erosion, and so on. These environmental problems, which know few global, regional or national boundaries, are attracting increasing attention and concern from countries in the region.

New information technology: The emergence of the New Information Age and what has been called the "information super-highway", with international television broadcasting that can be directly received in the home, is having a rapid and profound impact on Asian countries through introducing a variety of lifestyle information and news.

International relations: When World War II ended, Asia was in a state of ruin. Not only were Japan and China devastated by the war, but many countries in the region suffered greatly from the loss of lives and destruction of property. At that time, only a few countries claimed independence while the majority of present-day Asian nations, including India, Indonesia, Malaysia, Korea, Philippines and Viet Nam were still under some form of colonial rule. In many of these countries, democracy seemed to be a distant luxury. Fear of another war was also pervasive. Now, 50 years since the end of World War II, the Asian picture has changed considerably. Japan has become an economic powerhouse of the world, and various economic tigers are leading the Asian economic miracle. In many of today's Asian nations, democracy is acknowledged and practiced as a rule, not so much as an exception. The overall security environment has improved with the end of the Cold War.

Paradigm shifts: There has been a shift in paradigm over the past five years from a concentration on economic development to that of sustainable human development. Sustainable human development is development that not only generates economic growth but distributes its benefits equitably; that regenerates the environment rather than destroying it; that empowers people rather than marginalizing them. It is development that gives priority to the poor, enlarging their choices and opportunities and providing for their participation in decisions that affect their lives. It is development that is pro-people, pro-women, pro-nature, and pro-jobs. This paradigm shift has major implications for the way in which countries view the role of education and schooling in the development process.

Economic Issues and Secondary Education

The 1994 ADB study of secondary education reported that in 1990 public expenditure on education in Asia represented less than 10 percent of the world's public expenditure on education in 1990, despite the fact that developing Asian countries enrolled 50 per cent of the world's students and accounted for more than 63 per cent of the world's total population. On average, national public expenditure on secondary education in the region accounted for a little over 1 per cent of GDP, and around 5 per cent of all government expenditure.

There are three main factors accounting for the relatively low level of public expenditure on education in the Asia-Pacific region:

- by the standards of the industrialized world, the cost of education inputs is low in much of Asia, especially in regard to teachers' salaries;

- the level of resources per student is low, as evidenced by high student-teacher ratios, few textbooks, and limited facilities; and

- private sources of education finance play a significant role in a number of Asian countries through the existence of a substantial public sector and/or tuition fees being charged in public schools.

Nevertheless, there has been a growing financial commitment of Asian nations to education in general, and to secondary education in particular, over the past 30 years. In most countries public expenditure on education has risen as a proportion of GDP and of government expenditure as a whole. Since many countries in the region have also experienced rapid economic growth for much of this period, the net result has been a rise in education participation rates accompanied by increased levels of resources per student.

Within the outlines of this common pattern, however, there has been great diversity regarding the particular means of financing that have been used. This is especially so in regard to private sources of finance either in the form of tuition fees being charged for government schools, or through a substantial private school sector being encouraged or allowed. Even in regard to the latter, there is great diversity in the extent to which public funds subsidize private schools. Unfortunately, the private financing of secondary education is poorly documented in much of the region.

Private financing can ease pressure on scarce government resources. Tuition fees can also assist in meeting equity objectives, especially in those countries where attendance at secondary school is largely confined to students from privileged backgrounds. It is important, though, that financial assistance be structured that tuition fees do not discourage students from low income backgrounds. The implications of a greater reliance on private schools for the promotion of improved educational quality are not so clear.

Almost all countries in the Asian region have experienced substantial growth in secondary school enrollments over the past decade. Aside from the nations of South Asia, most other countries have also managed to increase the resources for secondary education at a faster pace than enrollments have grown. The net result has been that student-teacher ratios have declined and per student expenditures have correspondingly increased.

A major policy question concerns the extent to which the additional resources allocated to secondary education have been efficiently used. In terms of indicators such as drop-out rates and grade repetition rates, the results are fairly encouraging in most countries. Despite the fact that a broader range of young people is now entering secondary education across the region, drop-out and grade repetition rates appear to have declined since the early 1980s. Although there are some countries where the drop-out rate remains high (especially within the early part of lower secondary education), and other countries where grade repetition is a significant problem (particularly at the transition point from lower to upper secondary education), the fact remains that students who commence secondary education now have a better chance of completing secondary school, in minimum time, than in any other period in the history of most Asian countries.

The more difficult issue to resolve, however, is whether students who complete secondary education, and those who leave before completion, have gained anything of lasting value from the experience.

Since expenditure on teachers' salaries occupies such a large proportion of education budgets, it is clear

that teachers will be a major focus of efforts to improve the efficiency and quality of the secondary school system.

Throughout the Asia-Pacific region, there are widespread concerns expressed about the external efficiency of the secondary school system, as measured by students' success in becoming economically productive members of society. Policy development needs to proceed on two inter-related fronts. First, there must be continuing efforts by education authorities to ensure that young people are provided with curricula and learning experiences that are relevant to the economic and social environments they are about to enter, that provide them with realistic advice and counseling about their educational and employment expectations, and which equip them to continue learning over the course of their adult lives. Second, government agencies and industry organizations need to ensure that the growth in demand for educated labor keeps pace with the expansion of supply, that earnings reflect productivity, and that the workplace is organized to make full use of the skills and knowledge that educated young people possess. Educational development and reform is a necessary condition for economic development, but it is insufficient on its own.

Although it is difficult to isolate the particular impact of education on national economic development, analyses of successful individuals, enterprises and industries emphasize the importance of high quality and relevant education and training in promoting workforce skills and flexibility. In the East Asian region in particular, there is strong evidence that rising levels of educational attainment have had a positive impact on economic growth. There is particular evidence of the positive impact of secondary education expansion in the Republic of Korea on agricultural productivity. This finding has considerable implications for Asian nations with a large rural workforce.

Well-educated people generally earn more than those with only limited educational backgrounds. As a consequence, the private rate of return to investment in secondary education remains high although, as expected, there has been some decline over time as the number of people with educational qualifications has increased. The fact that private rates of return remain reactively high means that the demand for secondary education will continue to grow. The evidence suggests that the returns to secondary education are higher for completed courses of secondary education than for only one or two years of secondary schooling. This indicates the need for policies to reduce grade repetition and drop-out rates.

Many developing countries now experience the phenomenon of educated unemployment. Clearly, much needs to be done by education authorities to reorient curricula and career counseling to reflect more clearly the realities of the labor market. At the same time, those very realities - such as the payment of substantially higher salaries to workers with higher qualifications although they are doing the same work as those with lower qualifications - help fuel the demand for education. In such cases there are also grounds for reducing government subsidies of the costs of secondary education.

The per student costs of vocational programmes and vocational institutions are higher than the costs of general secondary education in countries that have adopted diversified curricula. It also appears that vocational graduates do no better in the labor force than graduates of general secondary programmes. However, the research backing for the latter conclusion is contentious, and better long-term analyses are required.

Qualities such as the capacity to absorb and use new information, to be able to work independently without close supervision, to be able to think flexiblely, to be able to work cooperatively in groups, and to be motivated and able to engage in lifelong learning, are all related to economic progress. However,

there is as yet little evidence that schools assist young people to develop these qualities. Economic and social development will not necessarily flow from more young people spending more years in education. Over the long-run, it is the quality of education - its capacity to challenge, provoke and stimulate - that is more important than its quantity.

Educational Response of Countries to these Emerging Social, Economic and Political Changes

Despite the great diversity among countries in the region, there is a large measure of agreement in what they regard as being the education issues that warrant special effort and attention. Where countries vary is in terms of the emphasis and priority placed particular on issues. These education issues have important implications for the content, processes and administration of secondary schooling.

Promoting Basic Education for All: All countries in the region, regardless of their level of development, are concerned with achieving a high level quality basic education for all their citizens. It is important to note that the definition of what constitutes a 'basic education' varies between countries, and is changing over time. For example, in the least developed countries a basic education refers to the development of fundamental literacy skills in terms of reading and writing, while in others it means the completion of primary schooling. In the more developed countries 'basic education for all' is viewed as being 'secondary education for all', since in the countries concerned secondary education is necessary if the individual is to be able to gain employment and become a fully functioning member of the society concerned.

Encouraging teacher education and development: It is widely accepted that the quality of any education system depends upon the quality of the teachers; and that teachers are a potent force to help achieve educational change. As a result, countries wish to ensure that the most appropriate people are recruited into the teaching occupation; and that they are provided with an effective training which makes them most effective in their work.

Focusing on women, girls and the disadvantaged: The unfortunate reality is that in most countries in our region all people do not have an equal access to the full range of educational benefits. Some groups are disadvantaged because of their ethnicity, their race, or due to socio-economic factors. Gender is also a key variable when it comes to a lack of equity in education and schooling in many countries.

Maintaining ethics, values and culture: The price of economic growth in the region has frequently been at the expense of sacrificing certain cherished ideas and values, or their dilution by imported values. Every country in the region is concerned about the moral development of their citizens, particularly that of young people. In many of the less developed countries there is a concern that although they want to develop economically, at the same time, they do not want to lose touch with their own traditional values and their indigenous culture. Thus the question that needs to be answered is: how can a country develop economically and modernize, without becoming overly westernized, in terms of being influenced by western attitudes, values and the like? The education system is an important vehicle for implementing answers to these types of questions.

Improving quality and relevance: As has already been mentioned, there is a concern about the importance of providing high quality education rather than just stressing quantitative aspects. With regard to the relevance of education, many countries are concerned that their curriculum is out of step with their social and economic development needs and goals. It is often felt that the curriculum represents the way things have been done in the past, and so may not adequately prepare people for the

future. Certainly it is important that students know something about their cultural heritage, and the school curriculum should reflect this concern. However, it is also important that the school curriculum equips them to live and work in a changing society. The school should be an agent of both conservation and change.

Providing education for the world of work: Schools have cultural and social functions, but they also have important economic functions. One of the major reasons for governments spending on schooling is to assist in human resource development in order to contribute to the economic development of their country. Many feel there is a need to link schooling more closely to economic requirements, and thus there is a growing interest in the extent to which subjects taught in school adequately prepare people for later employment.

Implementing preventative education: Countries are concerned that in many cases the price of economic development has been the destruction of the environment. Thus, although a higher standard of living may be achieved in terms of material life, overall there may be a lower standard of living in terms of quality of life. Many authorities now believe that more must be done through of education to encourage people to be more environmentally aware, through such means as preventative education. Preventative education also includes health and population education.

Using education for peace and international understanding: It is widely agreed that education must encourage international peace and understanding and the development of a more harmonious world.

Finding new delivery systems: It is important to find ways of making educational technology available in countries that do not have adequate resources to spend on high technology. Educational technology may be used to improve and enhance teaching and learning through such means as reaching teachers who are located away from the central capital city area in terms of teacher development programmes, using radio to reach children in inaccessible parts of the country, or using an overhead projector to make presentations more effective. A key matter relates to how we such technology can be harnessed to improve the quality of teaching and learning, at affordable prices.

Priority Issues Identified by Seminar Participants

Following the presentation and discussion of country papers, Seminar participants identified a wide range of issues of concern to secondary education in the region. Participants then nominated priority issues and concerns from their countries' perspective. From an analysis of the individual participants' responses the following questions were identified as a means of focusing attention on the issues of most concern.

1 What are the criteria for curriculum reform for the 21st century?

2 What are the most appropriate teaching and learning approaches to help achieve these curriculum goals?

3 How can nations ensure that they have secondary teachers in sufficient number and quality to meet the challenges that lie ahead?

4 In what ways may the structure and management of secondary schools need to be reformed?

5 How can we ensure that reforms are based on the best available information and research, and that

their impact is properly evaluated?

These five questions provided a systematic means of working through from the goals and objectives of secondary education (as reflected in the criteria for the curriculum) to the quite concrete issues of implementing and supporting the reorientation of secondary education.

To discuss these questions, participants were divided into two Working Groups. The membership of the Working Groups is given in Annex III. The Working Groups met separately, and in plenary session, over the course of several days. The group discussions were designed to provide a systematic means for countries to learn from each others' experiences. Accordingly, the above group of questions were examined from the following perspectives:

- What lessons can be learned from past experience?
- What strategies work well?
- What are the potential difficulties in implementing change?
- How can the countries of the region cooperate effectively in the further development of national systems of secondary education?

Chapter 3 draws together the results of these discussions by proposing desirable directions for the reorientation of secondary education. It also documents innovative approaches that countries in the region have taken to the task of improving secondary education.

Chapter 3: Reorienting Secondary Education

Introduction

Secondary education in the Asia-Pacific region faces major challenges and problems, as was documented in Chapter 2. Although many quantitative and qualitative improvements have been achieved over the past 30 years, the next decade promises to be the most challenging to date. The quickening pace of change in all spheres of social and economic life means that secondary education will need to change even more rapidly than it has in the past. A child born in 1995 will enter secondary school in about 2007, and graduate from secondary school in about 2012. Steps need to be taken now to ensure that students are provided with a meaningful secondary education which will help prepare them for life in the new century.

There was widespread agreement among Seminar participants that the issues and problems facing secondary education in most countries were of such magnitude that the sector itself required substantial reorientation. Although it is possible to identify individual policy initiatives that could be undertaken to improve secondary education, there was a general concern that unless these were part of a comprehensive conception of how secondary education should develop, piecemeal initiatives could possibly be counter-productive. What is required is a systematic way of integrating the various strands of reform so that, overall, a more purposive and powerful reorientation takes place.

In considering the general conception of how secondary education should be developed for the 21st century, it was agreed that the starting point should be the curriculum. Consideration of the curriculum raises fundamental questions about the purposes and objectives of secondary education. Clarification of the desired direction of curriculum reform provides the context for consideration of how, for example, teaching and learning strategies should be developed and schools should be organized.

Accordingly, in identifying how secondary education should be reoriented, the initial focus of Seminar participants was on curriculum issues. As it was neither feasible nor appropriate for participants to specify in detail the shape of individual countries' secondary curricula, the emphasis was on identifying the broad criteria that need to be considered when rethinking curriculum structure and content. These criteria provide guidelines for the general direction in which the curriculum needs to develop, and broad indications of what the secondary curriculum needs to achieve.

The next section of this chapter synthesizes the views of Seminar participants on the criteria for curriculum reform. That section is then followed by discussions of the implications of such curriculum changes for teaching and learning strategies, the role of teachers, and school organization and management. Innovative approaches adopted by countries in the region are then discussed in some detail.

For a number of countries in the region, implementation of the types of reforms suggested in this chapter would amount to far-reaching and substantial change in their systems of secondary education. For other countries the suggested reforms are broadly consistent with changes that are already under way. For countries in both types of situation, however, the general principles of successful educational reform remain the same. Accordingly, the final part of the chapter draws together the experiences of countries under the general heading of "what works well".

Criteria for Curriculum Reform

The participants believe that the following criteria need to guide curriculum reform. The list is not exhaustive and individual countries may wish to add criteria in order to meet specific national goals. However, it is agreed that the following are fundamental criteria against which any reform should be measured. It is believed that they are essential and must be applied in order that learners are adequately prepared to meet the demands and challenges of life in the near future. They have the over-arching objective of helping learners to learn throughout a lifetime.

As an instrument of education, curriculum should preserve, pass on and generate knowledge that is vital to the survival of humanity and to the improvement of the quality of life. Education, to be relevant, should be both responsive to the needs of a country and its people and proactive in anticipating future demands at local and global levels. Curricula, then, have three foci: individual; national; and international.

Individual:

For individuals in each country, the curriculum must have a nurturing function and thus it should

- provide opportunities and motivate students to develop their talents and capacities to their fullest potential;
- enhance physical, emotional, social and spiritual development;
- provide environments which will help develop rational, critical and creative thinking;
- create situations which will develop problem solving abilities;
- develop a social conscience, a spirit of sharing, and concern for fellow human beings.

National:

For each country, the curriculum should

- be open and available to all;
- reflect national priorities;
- preserve and enhance a country's cultural heritage and develop good citizenship;
- stress the urgency of environmental care and sustainable resource management;
- be sensitive to new developments in technology; and
- prepare the country's students for the world of work and lifelong learning.

International:

At an international and global level, the curriculum should foster understanding and encourage collaboration and cooperation among nations. It should do this by:

- creating an awareness of world-wide issues and inter-dependencies through world history and international studies;
- helping to create a multi-lingual, multi-disciplinary information network; and
- including peace studies as part of the curriculum.

Teaching - Learning Strategies

Teaching the secondary school student of the future essentially means teaching them how to learn and develop their metacognitive ability. Specifically, this means developing:

- the ability to access, process and use knowledge and information; and
- the ability to plan, direct, monitor and modify their own learning.

Some of the pedagogical methods that can develop students' thinking skills are:

- *Active learning*: strategies that enable students to be intellectually and physically active during the learning process such as learning through drama.
- *Interactive or group learning*: these approaches use group membership and interaction to promote learning as in group discussion, nominal group approach or working on a group project.
- *Experiential learning*: inductive methods of learning which allow students to draw insights from actual or simulated experiences. It develops skills in analysis, generalization and abstraction.
- *Problem solving*: teaches decision-making skills and the ability to generate alternatives to deal with problem situations. Case analyses or case studies are useful in this regard.
- *Practical experiences*: provide relevant experiences outside the classroom, and help to make theoretical work more meaningful.
- *Self-directed learning*: enables students to plan and monitor their own pace of learning.
- *Peer tutoring*: encourages sharing by providing opportunities for more able students to teach their classmates. Mutual learning is facilitated by this approach and students become more tolerant and accepting of individual differences.
- *Hands-on experience*: provides opportunity for students to apply knowledge and skills through practicum, field work or apprenticeship in the community and industry.

The above list of teaching strategies is clearly not exhaustive. They are merely indicative of the types of teaching approaches that help to provide students with the skills, knowledge and motivation to continue learning throughout their lives.

The Role of Secondary School Teachers

Universalization of secondary school education in the 21st century will result in a dramatic increase in student enrolment in many countries. Correspondingly, this will create a demand for many more thousands of teachers. Even now, many countries are short of secondary school teachers particularly in science and mathematics. Perhaps more important than quantitative demand for teachers, the necessary reorientation of secondary education will demand new types of teacher competencies.

The criteria for curricular reform which were outlined earlier in this report propose a shift in the educational paradigm from a highly academic to a more "*holistic*" approach, from a self-centred to a humanity-centred orientation, and from an economic orientation to total human development focus. This shift will correspondingly define new role expectations of secondary school teachers and require specific selection criteria for teacher education programmes.

Orientation of the teacher

The teachers' traditional role of imparting knowledge will be de-emphasized and modified to include the

following:

- being a *MENTOR* who will actively share with students in the learning process and will contribute to learning from their own experience;
- being a *COUNSELOR* and *GUIDE* who will encourage students to direct their own lives; and
- being a *RESEARCHER* who will continually evaluate the teaching-learning process and be more reflective about their own activities.

Types of teachers.

The paradigmatic shift in education outlined above encourages entry into teaching of people from different disciplines such as engineering and business. Drawing expertise from these and other sectors can be made possible through:

- employing teachers on a contract scheme;
- secondments of practitioners from other fields for short periods in schools; and
- team teaching approaches which involve people with a variety of skills and backgrounds.

Teacher qualifications

To encourage the entry into teaching of people with the necessary expertise, entry qualifications may need to be re-defined to include the following:

- professional competencies as reflected in an appropriate mix of
  - university degree and/or expertise in any other relevant field;
  - additional training in pedagogy;
  - computer skills; and
  - research capability

- personal qualities such as
  - commitment to young people;
  - communication skills; and
  - zest for learning

Teacher development

To enhance the competence of secondary school teachers, a continuous teacher development programme will need to be instituted. Such a programme could have the following features:

- A regular cycle of teacher re-orientation and professional development.

For example, teachers could be required to undergo re-orientation and upgrading of competencies through formal or non-formal methods say every five years.

- In-service training programmes, especially for teachers in remote areas, may take the following forms:
  - a scoop of schools can avail themselves of training and other resources in a centre within the cluster;
  - mobile teams that can provide annual professional development activities and, by taking the

same route back, monitor the impact of the programmes conducted earlier in the year;
- distance education; and
- appointing retired teachers to coordinate in-service training.

- Institution of a national centre for the coordination of in-service teacher training and the development of syllabi, modules and other teaching materials.

- Establishment of national and international teacher exchange programmes.

Teacher Status

Every society acknowledges the vital role teachers play. Unfortunately, much of this takes the form of lip service. The following strategies may help to make the acknowledgement of teachers more concrete.

- The community be encouraged to be an advocate for the improvement of the status of teachers especially within their own locality. Community leaders can be role models in according teachers' such respect.

- Teachers' salaries and other conditions should be made comparable to other professions.

- Government may provide alternative, budget-neutral ways to raise teachers' salaries. For example, teacher assistants (who do not need high academic qualifications and who therefore may be paid less) may take over teachers' tasks that do not require professional expertise, for example, clerical tasks. In this manner, teachers can concentrate on the major tasks of teaching and guiding students. Savings from such schemes can thus be used to increase teachers' salaries.

- Gender equity can be promoted by emphasizing performance and competence, as the main criteria for teacher selection and promotion.

School Organization and Management Structure

In order to support the implementation of a reformed curriculum and enlightened teaching and learning methods, schools must be managed and structured in innovative and flexible ways. The following school management and structural issues need to be considered by each education system.

School and class size:

Increased school and class sizes may lead to financial savings, but the cost may be an impersonal, dehumanized institution. Variation and flexibility in class sizes, schools within schools, and other innovations are required in order to balance the tension between cost savings and the need to enhance the interpersonal relationships that are so important for educational improvement.

Participatory management:

For the school to be open and inviting to learners it should promote a sense of a community. This may be achieved by management approaches which allow and foster student, teacher, parent and wider community participation in school decision making. All groups must be empowered by the school management structure but, it is important that students and their needs remain the school's prime focus.

Regional and Local Autonomy:

Decentralization of control and the self-managing school concept are important ideas when considering how schools are to become responsive to local needs. School and regional administrators need to be trained for new and challenging responsibilities. Such training is necessary not only to meet accountability requirements at fiscal and curriculum levels, but also to help administrators set up structures to facilitate meaningful community, teacher and student involvement.

Class and Course Management:

To meet the learning needs of a community, schools must structure courses and classes in such ways as to allow for multi-tracking and various modes of access, including facilitating community learning and information sharing activities.

Monitoring:

Quality control mechanisms need to be put in place at all levels of the school. Both internal and external assessment methods should be used as ways of assisting learners to learn and the school to achieve its goals.

Research-Based Educational Reform

Research is a powerful tool in evaluating education and designing its direction. Curriculum reforms should be research based to be relevant to the future. The following strategies may be taken to encourage a research culture in the secondary school system and in schools themselves.

- Creation of a research body with support from government and other sources to focus on national research priorities in education. This will make possible a continuous, comprehensive and systematic research agenda allowing informed input into policy formulation.
- Encourage pilot studies to ascertain the feasibility of curriculum and other reforms before they are implemented. A pilot study of the intended reform will show its strengths and weaknesses that require revision before it is institutionalized and implemented on a more wide spread basis.
- Inculcate the spirit of *KAIZEN*, the Japanese concept of continuous improvement, into school system, schools, and classrooms.
- Promote action research in the classroom and in the school. Micro-research done by teachers and principals can help generate solutions to problems and difficulties in the teaching-learning process and school administration.
- Establish an educational management information system (EMIS) that uses information technology to rapidly access process, and analyze key education data. Where appropriate, this information should be fed back to schools to assist their decision making.
- Establish and encourage regional networks to facilitate the sharing and dissemination of research information among researchers, policy makers and practitioners.

Innovative Approaches to Improving Secondary Education

This section provides concrete examples of innovative approaches to improving secondary education. These approaches are consistent with the general reorientation advocated by this report. Each Seminar participant detailed one innovative approach that has been successful in their own country, and which could be more widely applicable in the region. As the full country reports presented to the Seminar made clear, most countries have recently introduced substantial reforms in a number of aspects of secondary education. The approaches outlined in this section provide just a sampling of the programmes that are being tried throughout the Asia-Pacific region.

The approaches are grouped according to the framework used in the ADB- sponsored study of secondary education that was discussed earlier in the report. The innovative approaches are classified according to whether they are primarily aimed at improving equity and access, internal efficiency, quality, or external efficiency. It is sometimes difficult to determine precisely which of these four domains a particular policy objective is directed. Almost any initiative to improve secondary education will need to take simultaneous account of equity issues, the efficient use of resources, the quality of student learning, and the extent to which wider economic and social needs are being met. Nevertheless, the ADB framework provides a useful reminder of the range of policy issues that need to be considered.

Most of the innovative approaches that Seminar participants documented are primarily focused on improving the quality of educational processes and student learning. This is particularly noteworthy in light of the conclusion by the ADB report that quality issues have received insufficient attention in the region over the past 30 years. The growing emphasis on improving quality in secondary education that is now becoming evident is a very positive development.

Improving Access and Equity

Encouraging Female Education in Rural Areas

Bangladesh has recently introduced a scheme to encourage rural girls to continue with secondary education. Female students living outside municipal areas are granted special monthly stipends and exemptions from paying tuition fees. The grants are subject to three conditions: regular attendance at school; attainment of a minimum academic standard; and remaining unmarried. The scheme has had a positive impact on female enrollments, it has lifted overall academic standards, and improved access for disadvantaged groups. It has thereby helped to discourage the practice of early marriage that has been common in rural areas. This has had the further benefit of keeping population growth under control.

Residential Schools for the Disadvantaged

Residential schools in Malaysia have been successful in providing quality secondary education for disadvantaged students from rural areas. Students from low income families are given special consideration for entry into residential science schools which are located in some of the urban centres. Such students are fully financed by the government. The conducive teaching-learning atmosphere in the residential schools as compared to the impoverished home conditions have produced well-qualified students who are then able to pursue tertiary education either in Malaysia or abroad. Students' self development and peer relationships are enhanced by the provision of co-curricular activities in the residential schools. Most of the rural poor support the idea of sending their children away from home to take up such opportunities since this is considered one of the main chances to escape poverty.

Providing for Gifted Children

A programme to identify and foster gifted children is operating successfully in Vietnam. Every province, city and district is free to organize special schools or classes for gifted children from lower secondary levels onwards. The focus is on enrichment studies in areas such as mathematics, literature, and foreign languages. Some 43,000 students, or 10 per cent of all secondary students, are involved in such programmes. A small number of schools have boarding facilities to house gifted children from remote regions who wish to take advantage of such opportunities.

Using Community Facilities to Improve Access

To help raise literacy rates throughout the country, Pakistan has established coeducational Mosque schools at the primary level, and Mohalla schools, for girls only, in villages and remote areas. These schools make use of facilities that would be otherwise unused for much of the day. Children who are unable to attend school on a full-time basis can use such resources to acquire and build on basic skills in reading and writing. Moreover, the Allama Iqbal Open University in Islamabad has started to use distance education, techniques to provide secondary education for female students living in remote rural areas. The results are encouraging.

Improving Internal Efficiency

Decentralizing Educational Management

Decentralization of the Chinese education system commenced in 1985. The new system has given more autonomy to local governments and school administrators. The reform has proved to be very successful because of its flexible structure and ability to facilitate a series of far-reaching innovations. The innovations have included changes to the financing of schools, the closer integration of secondary education and local development, improved access to secondary education by disadvantaged groups, the encouragement of teachers to take more responsibility for their own programmes, and the development of curricula more suited to local needs.

Coordinating Research, Curriculum Development and Educational Improvement

The Lao P.D.R. has established a Research Institute for Educational Sciences (RIES) whose overall function is to improve education in the Republic. It does this by coordinating research and information services, curriculum development from primary to upper secondary school, and preparation of textbooks and teaching materials. The RIES acts as the main contact point for both national and international educational activities. Given Lao's relatively small population and limited resources, the RIES is seen as a cost-effective means of ensuring that trained personnel and relatively costly equipment are used to support educational development across the country.

Strengthening School-Community Relationships

The Republic of Korea has recently moved to change its formerly highly centralized system of school management. The Presidential Commission on Educational Reform has recommended that every public school set up a School Steering Committee (SSC). The SSC comprises the principal, and representatives of teachers, parents, alumni, community resource persons, and educational specialists. The Committee is to deliberate on such matters as the school budget, the curriculum, and school regulations. The reform is intended to strengthen the relationship between the school and the community. In 1994 a small number

of model schools established a SSC. The innovation is being extensively monitored, and it is expected that the number of schools with such committees will be gradually increased. In the case of private schools the committee's recommended role is limited to providing advice to the principal.

Improving Educational Quality

Integrating Curriculum Design and Student Learning Outcomes

Following a national agreement in 1989 on a common set of goals for Australian schools, curriculum development involved the identification of a set of capabilities covering Personal, Linguistic, Rational, Creative and Kinaesthetic attributes. General competencies that employers and educators believe are essential for life and work in a modern, technological society were also identified. Eight Key Learning Areas (KLAs) were then described in a set of curriculum statements, which were then followed by profiles which outline learning outcomes for each KLA. These profiles provide a basis for integrated curriculum development and assessment from the first year of primary school to the final year of secondary school.

Implementing a New National Curriculum through the Curriculum Network

To help develop and implement the new national curriculum adopted by Indonesia in 1994, a Curriculum Network (Jaringan Pengembangan Kurikulum) was established in each of the 27 provinces in 1991. Each Network instituted a Curriculum Development Team (CDT) whose functions include conducting a needs assessment of the province, selecting appropriate local curriculum content and materials, and adapting the national curriculum so that it is relevant to local needs and conditions. The CDT also provides resource persons to disseminate the new curriculum and to monitor and evaluate the local and national curriculum. The CDT is a mobile team that provides support and assistance throughout the province. CDT members are selected from senior teachers, principals, supervisors, and senior staff from the regional office. To implement its activities each CDT collaborates extensively with other relevant organizations such as local teacher training institutions and universities.

Developing New Approaches to Upper Secondary Education

The Shinjuku-Yamabuki Upper Secondary School in Tokyo, Japan has developed a number of very advanced approaches to upper secondary education. In particular it employs a credit system divided into four time segments that allows it to meet the needs of students in various patterns. Students are allowed to apply for credits gained on courses taken in quite flexible ways to be counted towards their graduation. The school offers a wide variety of elective courses, with students selecting those that best suit them at the beginning of their second year. It employs approximately twice as many teachers as a standard upper secondary school because the lifelong learning orientation of this school requires a number of lecturers from the community. A credit-based school such as this can support and guide many of the students who drop out from more conventional schools. Evaluations of the school have documented the improvements made possible by reduced class sizes, school self-management, greater usage of teaching resources from the community, and students taking more responsibility for their own learning.

Improving the Quality of Science Education

In 1993 Nepal established the Secondary Education Development Project (SEDP) to improve the quality of secondary education in general, and science education in particular. Under the project a network of

25 Secondary Education Development Units (SEDUs) was established across the country. Each SEDU is headed by a master teacher and is responsible for organizing teacher training programmes, providing advice to schools, and evaluating programme initiatives. SEDU activities are coordinated and supported by a national body. Each SEDU is equipped with books and reference materials, science equipment, and workshop tools. The SEDUs prepare teachers' guides and training manuals, and have a strong emphasis on strengthening science teaching. To complement this work, science teacher education programmes have been upgraded in universities, and science equipment teaching packages have been distributed to secondary schools. The overall aim of the SEDP is to improve the quality of student learning, for secondary education, by better coordinating teacher development, curriculum development, and teaching materials.

The Importance of a Strong Research Base

The strength of the Philippines' New Secondary Education Curriculum (NSEC) has been its systematic research and information base. Prior to its inception in 1983, a wide-ranging series of multi-sector consultations and research studies was conducted to identify issues in secondary education that needed to be addressed. Based on inputs from the national consultations and research, the framework for the NSEC was presented for widespread consultation before it was adopted. A four-year trial period from 1985 to 1989 was conducted in 78 schools across the 14 regions in the country. The evaluation of these pilot schools provided the basis for further revisions before the NSEC was finally implemented on a nation-wide basis in 1989.

Improvement of School Textbooks

In Sri Lanka students are provided with free textbooks in Grades 1 to 11. In 1992 the government commenced a programme to improve textbooks to better prepare students for "learning to learn". The new books included two pages of guidance to students on how to use the books on their own initiative, and a page of advice to parents on helping their child to manage his or her own learning. The layout of each lesson in the books was designed to include tests of comprehension, exercises for the consolidation of learning, and suggestions for student projects. The programme commenced with Social Studies in Grade 6 and was gradually extended to other Grades and subjects.

Linking Teachers' Employment and Quality Improvement

Uzbekistan has recently introduced a contract employment system to help improve the quality of teachers. Contracts are negotiated between school principals or directors and teachers for periods of 1 to 5 years. The contracts contain clear statements of the commitments and rights of both parties. They also include details of salary increased over the period and other working conditions, and the circumstances under which the contract may be terminated by either party. The move to alter the basis of teachers' employment from lifetime tenure to a fixed-term contact is consistent with changes elsewhere in the economy towards a more market-based approach. The new system is expected to provide more incentives for teachers to perform at consistently high levels.

Improving External Efficiency

Linking School and Work

In 1992 the Government of Iran reformed secondary education to comprise three main branches: the Theoretical Branch; the Vocational and Technical Branch; and the Kar-Danesh Branch. The Kar-Danesh

("work knowledge") Branch provides skills training for young people through a combination of modules of formal study and employment-based experience. The programme has reduced school drop-out rates, lowered education costs, and received strong support from employer and parent groups. The programme's close integration of theory and practice has been particularly successful in attracting female and rural students.

Emphasizing Values Education

There is a concern on the part of the Thai community that although they have reaped the benefits of rapid economic development over the past 25 years this has resulted in socio-cultural changes which have eroded key traditional values and undermined the national identity. Therefore, in the past few years values education has been made a high priority in secondary education by making it part of the core curriculum. Major programmes have been initiated in teacher education and curriculum development to support this increased emphasis on values education

What Works Well?

In much of the world the track record of educational reform is not an impressive one. There are many examples of policy initiatives that have either foundered completely or failed to be successfully implemented in full. Education cannot afford to have scarce resources wasted and high hopes dashed because of the frequent failure of policy reforms. This is particularly so in the highly centralized school systems that characterize much of the Asia-Pacific region. In such systems the costs of failed policy initiatives can be especially high since the resulting changes are usually imposed on all schools in the system concerned.

It is important, therefore, to search for examples of successful policy initiatives to distil the reasons for their comparative success. The approaches documented in the previous section provide some useful insight in this regard. Although some of the factors contributing to policy successes are particular to the reform and the country concerned, it is possible to identify some common features associated with successful educational reform in quite different contexts.

Policy objectives need to be realistic and clearly articulated

There are often political and other pressures on education reformers to "oversell" the benefits of what they are trying to achieve. It is important to set policy goals that can be realistically achieved with the available resources and within existing constraints. Over the longer term it is better for modest goals to be successfully met than for grandiose schemes to fail. Policy objectives are more likely to be realistically based when they can be clearly articulated and readily understood by all concerned.

The key interest groups need to be consulted and involved

One of the principal reasons why education reforms often fail is that the key partners in education have not been adequately consulted and involved in the change process. There are few examples of "top-down" policy initiatives that have worked well. More than in any other area of social policy, success in education requires the active cooperation and participation of a wide variety of interest groups. Depending on the particular policy involved, these interest groups may be teachers, parents, employers, community groups, and students themselves. Although it can be a laborious and time-consuming process consulting all such groups, it is hard to conceive of successful educational reform occurring without their

support, or at least without their willingness to try the initiative concerned. The consultative process needs to involve more than simply informing teachers and others that change is about to occur. Rather, the process needs to be participatory in character, with the experiences and views of the interested parties actively sought out and incorporated wherever possible. Although it is perhaps overly optimistic to expect that consensus can ever be reached in such a sensitive area as secondary education reform, the risk of costly mistakes is reduced by seeking in advance the views of as many people and groups as possible.

The key role of the teacher needs to be recognized and supported

In general, the most lasting and fundamental education reforms are those that change teachers' behaviour. Ultimately, it is the interactions that occur on a daily basis between teachers and students that determine educational quality. Unless the paramount role of teachers is recognized and supported, the prospects of successful curriculum or structural reform will be severely diminished.

Realistic time frames need to be established

The imposition of unrealistically short time frames is a common reason for the failure of otherwise sound educational reforms. All too often, the pace of change is dictated by the political electoral cycle. While the desire for rapid results is understandable, the factors affecting education are normally so complex and multi-faceted that change is inevitably slow and long term. Teachers generally take three or four years to train, and it is often not until they have been teaching for a considerable period that they can be considered fully effective. Students commonly spend six or more years in secondary education, and the impact of particular policies will sometimes not be obvious until a number of years after their graduation. Although tardiness by educators in implementing change should not be tolerated, the realities of educational time frames need to be recognized.

Adequate resources need to be provided

When the total volume of resources devoted to education is considered, it is often striking how few resources are provided to support particular policy initiatives. If policies are to be successful, it is necessary to allocate the financial, personnel and material resources to make them work. Worthwhile policy reforms will repay these investments many times over.

Policy reforms need to be properly monitored and evaluated

One of the weakest links in the policy implementation chain can be at the monitoring and evaluation phase. Unless sensitive and thorough monitoring of policy initiatives is built into the whole process, there is a real risk that necessary modifications will not be made as circumstances change and experiences accumulate. Systematic evaluation serves another important purpose: demonstrating the benefits of educational reform makes it that much easier to gain support for change the next time round.

Chapter 4: Recommendations and Matters for Consideration

Based upon the country reports presented, and discussions held, at this regional meeting on secondary education in the Asia-Pacific region, participants raised a number of matters for consideration and made a number of recommendations regarding factors which they believe either warrant further attention or follow-up action on the part of National Governments, International Agencies and organizations such as NIER.

International Agencies

1. UNESCO has recently taken action to establish a network on secondary education to facilitate the sharing of information between countries on their systems of secondary education in terms of such matters as policy, practices and innovative approaches that have worked effectively in the countries concerned. It is recommended that further action be taken on the part of international organizations, national governments and others to further support this useful initiative

2. It is recommended that international organizations such as UNESCO-ACEID take action to facilitate, help support and co-ordinate an exchange and training programme for policy makers and practitioners involved with secondary education to facilitate the sharing of experience between the different countries concerned.

3. In order to help promote international and cultural understanding, it is suggested that organizations such as UNESCO explore the possibility of facilitating the translation of appropriate secondary school textbooks into national languages for use in different countries.

4. It is recommended that UNESCO, in co-operation with bodies such as the Asian Development Bank, facilitate the holding of regional meetings of policy makers and practitioners to share relevant experience regarding the effective reconstruction and renovation of secondary education.

5. It is recommended that countries be provided with assistance in the specification and use of education indicators, in establishing data banks, and in determining ways of disseminating and sharing information throughout their systems and among countries.

6. It is recommended that given the previous work undertaken by UNESCO-ACEID and NIER in areas such as the holding of meetings and production of publications they should explore further areas of collaboration regarding innovative approaches to the renovation of secondary education.

National Governments

1. It is recommended that, when framing policies to assist in the restructuring and renovation of secondary education, that national governments pay special attention to the directions for reorientation outlined in this report. It is particularly important that students be equipped with the skills, knowledge and motivation to assist them in continuing to learn throughout their lives.

2. It is recommended that Governments support the international exchange of educational personnel in order to assist them to learn from each others' experience regarding the development of secondary education.

3. In an effort to promote the strengthening and upgrading of their systems of secondary education, it is recommended that governments seriously consider the importance of decentralization and the introduction of, for instance, innovative approaches to school level management.

4. Co-operative efforts should occur to help countries share details on most effective approaches to teaching and learning in secondary education, and to facilitate the translation into other languages of key education texts that will help promote international peace and understanding.

5. It is recommended that greater attention be paid to benefit monitoring to ascertain whether persons or groups do actually benefit from particular educational policies.

6. It could prove helpful to explore alternative modes for delivering secondary education through non-formal means, the use of modern communication technologies, and the use of local as well as national languages.

7. It would appear to be helpful to explore innovations in the curriculum, with particular attention being paid to: basic education to cater for the whole age group; environmental and preventative education programmes; values and ethics; linkages between school-industry and the world of work; and technical and vocational education.

8. Major considerations that require further exploration by national governments include the levels of financing required to sustain a quality education which is sustainable over the long term, the monitoring of the trends in education costs, and the interactive effects of policies with respect to dropout or wastage rates, student teacher ratios (class sizes) and the private financing of education or government budget allocations for a quality secondary education.

9. Greater attention should be paid to policies and practices which explore ways of increasing the access of women and girls, and members of other societal, generally minority sub-groups (the disabled, rural, ethnic/racial, religious) to secondary education. Matters that warrant consideration include revision of curricula, provision of learning-centres, teacher development, and financial support. While increasing attention has recently been given by governments to the participation of females, similar levels of interest and support are required for improving the education of such groups as minorities, the disabled and those living in remote areas.

10. It is recommended that countries examine fully the extent to which high quality, timely and relevant research is to be fostered to provide reliable information to inform innovation, management and policy; and the improvement of teaching and learning procedures.

Annex I: List of Participants

Participants

Australia

Dr. A. Rex Kerrison

Assistant Dean
Department of Education
University of Tasmania
GPO Box 252C
Hobart TAS, 7001
Tel: +61-02-202582 Fax: +61-02-202569

Bangladesh

Prof. Hasan Waiz

Chairman
Board of Intermediate and Secondary Education
Jessore

China

Mr. Wang Chang Pei

Dean
Department of Mathematics
Beijing Institute of Education
2 Wen Xing St.
Beijing 100044
Tel: +86-10-835-1459 Fax: +86-10-835-1459

Indonesia

Mr. Siskandar

Head
Division of Curriculum Development of Secondary School
Curriculum Development Centre
Office of Educational and Cultural Research and Development
Ministry of Education and Culture
Jl. Gunung Sahari Raya 4
Jakarta 10002
Tel: +62-21-3804248

Iran

Dr. Abbas Sadri

General Director
Higher Education Bureau
Ministry of Education
Zafar Ave., Nonahalan Street,
Secondary Education Building
Tehran
Tel: +98-21-2003475 Fax: +98-21-2003474

Japan

Mr. Kazuo Ishizaka

Chief
Section for Curriculum
Research Department of Teaching and Guidance
National Institute for Educational Research (NIER)
5-22 Shimomeguro 6-chome, Meguro-ku
Tokyo 153
Tel: +81-3-5721-5052 Fax: +81-3-5721-5451

Japan

Dr. Katsuhiko Shimizu

Senior Researcher
Section for Teaching Materials
Research Department of Teaching and Guidance
National Institute for Educational Research (NIER)
5-22 Shimomeguro 6-chome, Meguro-ku
Tokyo 153
Tel: +81-3-5721-5054 Fax: +81-3-3714-5294

Japan

Mr. Eiji Kikuchi

Researcher
Section for Admission and Placement
Research Department of Educational Management
National Institute for Educational Research (NIER)
5-22 Shimomeguro 6-chome, Meguro-ku
Tokyo 153
Tel: +81-3-5721-5049 Fax: +81-3-3714-5294

Lao P.D.R

Mr. Vithasay Sisavang

Head
Secondary Education Section
Ministry of Education
Department of Preschool and General Education
P.O. Box: 67, Vientiane
Tel: +856-21-212037 Fax: +856-21-212108

Malaysia

Dr. Wan Chik Rahmah Wan Din
Principal Assistant Director
Educational Planning and Research Division
Ministry of Education
Level 2, Block J
Damansara Town Centre
50604 Kuala Lumpur
Tel: +60-3-2556900 Fax: +60-3-2554960

Nepal

Mr. Lohani Shambhu Prasad
ACT. Director
Regional Education Directorate of the Central Region
Kathmandu
Tel: +977-1-412418

Pakistan

Mr. Bashir Ahmad Chaudhry
Assistant Educational Adviser
Planning and Development Wing, Ministry of Education
Islamabad
Tel: +92-51-212592 Fax: +92-51-816826

Philippines

Dr. Leticia Peñano-Ho
Professor
Division of Educational Leadership and Professional Services (DELPS)
College of Education, University of the Philippines
Diliman, Quezon City
Tel: +63-2-929-9322 Fax: +63-2-9245009

Republic of Korea

Dr. Jae-Woong Kim
Assistant Professor
Institute of Distant Education
Korea National Open University (KNOU)
Seoul 110-791
Tel: +82-2-740-4542 Fax: +82-2-740-4335

Uzbekistan

Mr. Abdusalom Umarov
Director
National Gymnasium on Social Science
Ministry of Public Education
54, Buyuk Ipak Yuli Street
700137 Tashkent
Tel: +7-3712-678308 Fax: +7-3712-670538

Uzbekistan

Mr. Komiljon Karimov

Head of the Education Department
The National Commission of the Republic of Uzbekistan for UNESCO
54, Buyuk Ipak Yuli Street
700137 Tashkent
Tel: +7-3712-670549 Fax: +7-3712-670538

Sri Lanka

Prof. Chandra Lakshman Vaidyaratna Jayatilleke

Chairman
National Education Commission
120/15, Wijerama Mawatha
Colombo 7
Tel: +94-1-695885 Fax: +94-1-695865

Thailand

Mr. Senee Pitakannop

Expert in Curriculum Development
Head of Mathematics and Science
Curriculum Development Centre
Department of Curriculum and Instruction Development
Ministry of Education
Sukhumvit Road, Prakanong
Bangkok 10110
Tel: +66-2-391-0055 ext 503 Fax: +66-2-391-5029

Viêt Nam

Dr. Vu Quoc Anh

Deputy Director
General Secondary Department
Ministry of Education and Training
49 Dai Cô Viêt Str
Hānôi
Tel: +84-4-694256 Fax: +84-4-694085

Resource Person-Participants

Australia

Dr. Phillip McKenzie
Principal Research Fellow
Australian Council for Educational Research (ACER)
Private Bag 55
Camberwell VIC 3124
Tel: +61-3-9277-5585 Fax: +61-3-9277-5500

UNESCO-PROAP

Dr. Rupert Maclean
Chief
Asia-Pacific Centre of Educational Innovation for Development (ACEID)
UNESCO Principal Regional Office for Asia and the Pacific
Box 967 Prakanong Post Office
Bangkok 10110
Thailand
Tel: +66-2-391-0577 Fax: +66-2-391-0866

NIER Secretariat

Mr. Ryo Watanabe	Chief, Section for International Co-operation
Mr. Taro Numano	Researcher, Section for International Co-operation
Mr. Yoshiyuki Nagata	Researcher, Section for International Co-operation
Mr. Shin'ichiro Susuta	Research Fellow, Section for International Co-operation

Annex II: Summaries of the Country Reports

Prior to the Seminar each participant prepared a substantial background paper on secondary education developments and issues in their country. These papers were structured to reflect the Seminar's objectives as outlined in Chapter 1 of this report. The country papers were each approximately 6000 words in length. Due to limitations of space it was not possible to reproduce them in full in this report. Accordingly, country participants prepared 1500 word summaries of their papers during the course of the Seminar.

The summaries of the country papers were structured around four main sections:

- an outline of two key changes made to secondary education in the last five years or that are currently underway or planned, and the main reasons for the reforms;
- evidence on the impact of these changes if they are already in place, or an indication of the strategies being used to monitor their impact if they are currently underway;
- an outline of three key issues for the future improvement of secondary education in the country concerned; and
- reflections on the main lessons to be drawn from national efforts to reform and reorient secondary education.

This Annex contains the summaries of the country reports prepared by participants. Participants were asked to exclude statistical details from their summaries. Therefore, to provide some background for the summaries, the following table highlights key statistical data provided by participants.

Table 1-1: Background Information on Secondary Education in the Asia-Pacific Region

		Australia	Bangladesh	China	Indonesia
Country population (in millions)		18	116	1172	179
Age Range		12 - 17	11 - 17	11(12) - 17(18)	13 - 18
Number of Students (in millions)	male	0.6	3.8	31.7	6
	female	0.6	1.7	23.4	5.3
	total	1.2	5.5	55.1	11.3
Number of teachers (in thousands of full-time equivalents)	male	50	114	4111	420
	female	50	15	1221	256
	total	100	129	5332	676
Enrolment Rate (in %)	male	85	17	70	68
	female	90			
Major Language (s) of Instruction		English	Bengali/ English	Chinese	Bahasa Indonesia

		Iran	Japan	Lao P.D.R.	Malaysia
Country population (in millions)		60	125	5	19
Age Range		14 - 18	13 - 18	11 - 16	12+ - 18+
Number of Students (in millions)	male	3	4.8	0.1	0.8
	female	1.3	4.7	0.06	0.8
	total	4.3	9.5	0.16	1.6
Number of teachers (in thousands of full-time equivalents)	male	7	386	6	38
	female	67	169	4	50
	total	58	555	10	88
Enrolment Rate (in %)	male	125	98		49
	female		99		51
Major Language (s) of Instruction		Persian	Japanese	Lao	Malay

Note: The data are the latest available one and they are provided by the participants. For most countries they refer to a year in the 1990-1993 period

Table 1-2: Background Information on Secondary Education in the Asia-Pacific Region

		Nepal	Pakistan	Philippines	R. of Korea
Country population (in millions)		20	115	67	44
Age Range		12 - 16	5 - 17	12 -16	12 - 17
Number of Students (in millions)	male	0.6	0.8		2.3
	female	0.3	0.4		2.2
	total	0.9	1.2	4.8	4.5
Number of teachers (in thousands of full-time equivalents)	male	23	85		124
	female	3	38		69
	total	26	123	121	193
Enrolment Rate (in %)	male	68	55	83	94
	female	33	30		94
Major Language (s) of Instruction		Nepali	English, Urdu, Sindhi, Pashto, Balochi, Brohi	Filipino and English	Korean

		Sri Lanka	Thailand	Uzbekistan	Viet Nam
Country population (in millions)		18	60	22	73
Age Range			12 - 17	11 - 17 (18)	11 - 17
Number of Students (in millions)	male	1		1.5	2.3
	female	1		1.4	2.2
	total	2	4	2.9	4.5
Number of teachers (in thousands of full-time equivalents)	male	31		157	64
	female	38		236	115
	total	69		393	179
Enrolment Rate (in %)	male	57	56	96	52
	female	55		95	48
Major Language (s) of Instruction		Sinhalese Tamil	Thai	Uzbek Russian Karakalpak	Vietnamese

Note: The data are the latest available one and they are provided by the participants. For most countries they refer to a year in the 1990-1993 period.

Australia

In 1989, the Australian Education Council (AEC), which consists of state, territory and federal ministers of education, agreed on a set of common goals for schooling across the nation. These include aims making learning more accessible and more equitable and so all states have now developed equity policies and programs which aim to provide inclusive quality schooling for all students irrespective of social background, ethnicity, gender or geographic location. The goals also promote national consistency, coherence and quality in the provision of schooling. Two key changes to secondary education in Australia are described below.

Key Changes in Australian Secondary Education

1. Towards a National Curriculum

National Statements and Profiles

Curriculum development at the national level was required in order that common goals can be achieved. Eight key learning areas were identified, these being: Mathematics; English; Science; Technology; Studies of Society and Environment; Health; Languages other than English; and The Arts.

Briefs defining each learning area were prepared and are called *Statements*. These statements are designed to expand upon the common, agreed to national goals for schools. They define a given area of learning and outline essential and distinctive elements of that area. The statements are not subjects *per se*, although they relate generically to subjects that are nominally similar to the areas listed above. They are used as guides by the state and territory education systems for curriculum, course and resource development.

Profiles follow the statements, these consisting of a series of descriptions of learning outcomes for each of the learning areas. Outcomes are described for each key element in a learning area and are arranged in progressive order of difficulty, and describe the skills and knowledge students need to acquire in order to become proficient in the area. They span the compulsory years of schooling. The profiles also include pointers to competencies and capabilities which employers identified as essential in a modern workforce. They are also designed to provide a set of common indicators for measuring and reporting student learning outcomes although they are not assessment packages.

The national statements and profiles have now reached into, and influence, the curriculum in all Australian schools both government and private.

Capabilities

The capabilities cover personal, linguistic, rational, creative and kinesthetic attributes, each learning area making a unique and significant contribution to each capability. The following is a very brief description of each capability and some of its elements, each description serving to indicate the part played by capabilities in the education initiative:

- Personal: Developed through person to person encounters and through situations requiring reflection on past behavior.
- Linguistic: Developed through listening, speaking, reading etc.

- Rational: Developed through using logical processes.
- Creative: Developed through using imagination.
- Kinesthetic: Developed through manipulating form, space orientation and movement.

It is the intention that each capability be progressively developed in programs, from kindergarten through to year twelve, although at times some may be emphasized more than others.

Competencies

Competencies are work related and programs of study are designed to enable students to relevance progressive by towards their achievement. The competencies have been identified as: collecting, analyzing and organizing information; communication ideas and information; planning and organizing activities; working with others and in teams; using mathematical ideas and techniques; solving problems; and using technology.

The essential feature of this change in Australian school education is that capabilities and competencies are the central driving focuses in the curriculum, rather than subject matter as such.

Equity and Access

The national common and agreed to goals for schooling make it clear that schools must ensure that students are never disadvantaged on the basis of their ethnicity, gender, social origin, ability, place of residence or economic circumstances. Support must also be provided for students who have sensory, physical, intellectual or emotional disabilities. A special focus has been the issue of equity in relation to gender.

Education of Girls

Although much progress has been made in recent years regarding equal educational outcomes for most girls in Australia, some restriction in employment prospects remain due to the gender constructs of Australian society. A national action plan for the education of girls outlines the following priorities: examining the construction of gender; eliminating sex-based harassment; improving the educational outcomes of girls who benefit least from schooling; addressing the needs of girls at risk; reforming the curriculum; improving teacher practice; broadening work education; and changing school organization and management practices.

Key strategies, Questions for schools and System-level indicators have been developed for each of these priorities. State departments of education have translated the national action plan into implementation documents for their schools. Such documents provide examples of planning sheets which may be used in identifying situations with regard to gender inequality, suggesting strategies to overcome such situations, and steps for reviewing progress and identifying support materials.

Reasons of the Changes

The catalyst for change was the recognition that there are common categories of problems which affect students across the nation, these being:

- problems associated with equality of educational opportunity. Difficulties in access and equity were faced by minority groups; by children in isolated communities; and by children with special needs;
- problems associated with the curricula in place in schools, students not being adequately prepared for a world characterized by increasing uncertainty and complexity;
- problems related to employment, changing work patterns meaning that more post-compulsory education was needed to fulfil employment demand, education not providing a broad set of skills or capabilities which would enable people to learn and go on learning throughout their lives.

Impact of Change

Much has been achieved with regard to both initiatives, as described above. There have been important changes to schooling due to the statements, profiles and gender programs reaching into and influencing all schools in the country. These have worked well because there has been a commitment to them from all sections of the community, especially from a well trained and professional teaching force, while substantial community commitment has been reached after wide spread consultation.

Key Issues for the Future Improvement of Secondary Education

1. An ageing teachers workforce and the need to recruit new teachers into the profession which also needs to be made more attractive if good people are to be recruited.
2. Developing innovative teaching and schooling approaches which utilize technological developments and capitalize on student interest.
3. Self-managing schools and a move towards privatization in education.

Concluding Statement

Lessons which can be drawn from the recent Australian school education initiatives include:

- the positive benefit of achieving wide spread community consensus, with an emphasis on common goals of co-operation, respect, equal opportunities and access to education, all of which are features which embrace wide spread support because of their appeal to "fairness."
- the initiatives were forward looking.
- the rapid implementation of many initiatives at the one time can cause teacher stress and gives rise to misunderstandings.
- a strong theoretical and research base is essential for professional acceptance.

Bangladesh

Introduction

Secondary education in Bangladesh has remained neglected for many years. Most of the secondary schools of the country are privately managed. The paucity of funds meant that the development of

institutions was almost impossible. The expansion of physical facilities remained unattended. Teachers were ill paid and their terms and conditions of service were not at all satisfactory. As such, the teaching profession failed to attract highly qualified persons; and adequate training facilities to prepare them academically and professionally were also not available.

But in recent times, Bangladesh has attached great importance to reforming its secondary education system. She has realized that every progressive state has to provide for universal education and to divert students to courses of study according to their aptitude or in relation to their physical and mental handicaps, with the object of making them most effective earning and productive units. Every civilized state in the course of its development has to fully examine the pros and cons of providing a useful liberal and cultural education, including aspects of technological, mechanical, purely scientific education as well as treat of the humanities and classics. This realization has led Bangladesh to expand its development of educational facilities, so that the old system is being overhauled to be replaced by a newer and fresher system to contribute to wealth, prosperity and national glory. In this regard, due emphasis is being given to educational planning for the utilization of manpower resources and a lot of exercises are being undertaken to make education more useful and to help eliminate waste. Large sums are also allocated to meet the expenditure involved. In the annual budget of the Bangladesh Government for the year 1995-96, the highest allocation of funds has been made in education. The steps already taken and those which are in the process will bring about further radical changes.

Structure of Secondary Education

At present 5+3+2+2 years of schooling are required for primary, lower secondary, secondary and higher secondary levels of education. The primary school comprises classes 1 to 5. Education at the primary level is free (both tuition and books), while in areas in which people are in abject poverty, the government has introduced a food for education programme. This has helped increase enrollments at the primary level.

There are many lower secondary schools in the country involving classes 6 to 8. These secondary schools are granted recognition by the Deputy Director of Secondary Education of the concerned region. These lower secondary schools are gradually upgraded and introduce classes 9 and 10 to become secondary schools. The recognition in this behalf is granted by the Boards of Intermediate and Secondary Education. Very few secondary schools of the country have classes 11 - 12, these classes being mostly attached to Degree Colleges, while in some cases, a separate institution known as an Intermediate College deals with them.

From this academic session (1995-96) it has been decided to encourage the upgrading of secondary schools into higher secondary schools. This will serve several purposes all at once. First, since increasing the secondary level of education by two more years is under the active consideration of government, this will give an opportunity to study how far it is feasible. Secondly, people are trying to set up more and more intermediate colleges in different areas, but since we live in a land constrained area, we must have multi-purpose institutions. Thirdly, whole syllabi of the secondary level are being thoroughly revised for which more competent and qualified teachers are necessary. The introduction of intermediate course will call for the appointment of teachers with master's degree to their credit.

Streaming at the Secondary and Higher Secondary Levels

At the secondary level, students can study either science or social science. At the higher secondary level, there are as many as seven groups with many elective subjects. Besides these general schools and colleges, there is a number of vocational institutions and technical training institutions directly under the academic control and supervision of the Technical Education Board. Vocational training institutions have failed to attract students because on completion of the training they used to be recognized as semi-skilled person with credentials that would not even allow them to enter into higher institutions. Their future, therefore, was almost sealed. In order to attract students, courses have been redesigned and pass certificates are accepted as being equivalent to S.S.C. There are quite a large number of Madrasahs in the country under the academic control and supervision of the Madrasah Education Board.

Curriculum and Books

There is a National Curriculum and Textbook Board directly under the Ministry of Education. According to national objectives, syllabi are revised and updated from time to time. Recently, agriculture (with the alternative of home economics for girls) has been made a compulsory subject at the secondary level. Syllabi at each level are being revised to suit the present needs, the main objective being to make students capable of self employment.

Salary of the Teachers and Staff of Non-government Institutions

The government contributes 80% of the total pay of teachers and staff of private institutions, while recently the government has created a trust fund with Taka 300 hundred million from which pension benefits may be offered to superannuated teachers.

In-service Training

After the introduction of agriculture as a compulsory subject at the secondary level, secondary school teachers have themselves required proper training to prepare them in this regard. Thus the Ministry of Education has arranged special tailor-made short courses in each Thana, arrangements being made to ensure these short training courses for teachers at Thana level are available around the year. Training institutions are also running such courses round the year, and the Bangladesh "Open University" offers BEd courses for teachers. From 1997 students who cannot join secondary and higher secondary schools may take SSC and HSC examinations to be conducted by the Bangladesh Open University. The 'CELP' (Certificate in English Language Proficiency) course, which is run and conducted by the Bangladesh Open University, has become popular. The University has also designed short courses in electronics, nursing and many other subjects which will be administered soon.

Special Stipends and Tuition Free Secondary Education for Girls Living Outside the Municipal Area

Female students studying in secondary schools outside the municipal area receive special stipends from the government and are exempted from paying monthly tuition fees to schools. The result is very encouraging with student enrolment having greatly increased.

Evaluation

Two formal, public examinations are administered by the Education Boards to assess the attainment of students at the secondary level. One occurs at the end of class 10 (called SSC Examination) and another at the end of class 12, which is known as HSC. The Boards have recently made improvements to make the process corruption free and computers are being used now to process the results.

Recommendations

Students at the secondary level deserve great considerations because they undergo many changes during this stage of their lives. There are many important physiological changes that occur while at the same time they are developing their attitude towards life, society, the nation and to the world at large. They are a great force; have many potentialities; their susceptibilities are keen; and their expectations great. So the teacher's role at this stage is vital. Teachers at the secondary level must be ardent and dedicated, an important matter to be kept in mind when recruiting teachers.

Better service conditions for teachers are necessary to attract highly qualified individuals and those of character into the profession. Refresher courses to upgrade the teachers' skill and knowledge should be arranged.

Educational programmes through mass media may remove many constraints, video tapes being used to help students understand difficult problems.

In respect to technical education, strategies and innovation which have worked in other countries may be adopted, regional co-operation in the field of education being encouraged.

China

Introduction

A decision by the Central Committee of the Communist Party of China in 1985 has initiated the restructure of the Chinese education system, profound reform being continued over the past five years.

Restructuring of the Education System

Decentralization

The previous system of "the government being responsible for all", which played a positive role under the conditions of that time, can no longer meet the needs of a developing market-oriented economy and the growing needs of the society. Nor is the earlier system constructive in mobilizing the enthusiasm of various social sectors in the effective running of schools. The Chinese government therefore decided that this system should be changed, to be replaced by a more flexible and balanced system under which the state will become the major (but the only) sponsor in society. It is agreed that basic education, especially nine-year compulsory education, should be chiefly sponsored by government, while other sectors should be encouraged to run schools with diversified forms in accordance with the

laws and policies of the state. It is believed that higher education should mainly be the responsibility of the government with the participation and involvement of various other sectors of society as is deemed necessary and advisable.

The previous administration system should also be replaced with a more flexible system under which the relationship between government, society and school is clearly set out.

For secondary schools and below, local governments at different levels will be responsible for making overall plans and for providing administration under the guidance of the policies of the central government. Thus primary, junior secondary and senior secondary schools are run by local governments at different levels.

The reform of the educational system is bound to be followed by the restructuring of the inner-school administration that was also initiated by the 1985's "Decision". Although there is no concrete uniform system of inner-school administration across the whole country, a few key principles are provided by the "Education Law of Peoples' Republic of China" and a few regulations suggested by State Education Commission (SEC) have already been implemented.

The school has a legal entity in the society. The headmaster is the representative of the legal entity, he (or she) being in charge of the school's daily operation. The school staff committee plays an important role in school democratic management; while the new system of inner-school administration allows schools to have more autonomy to create various styles of curriculum to meet the needs of a rapidly changing society.

The main objective of educational reform is to eliminate the practice where the government takes control of and is responsible for everything, and to mobilize the enthusiasm of the whole society in running education. It is an attempt to find a way for developing education which conforms with China's actual situation, improves the quality and efficiency of education and gradually establishes an educational system with Chinese characteristics.

Introduce a more flexible school system

The previous school system was a single-track system of "6+3+3" whose curriculum was only designed for further academic study. In addition, when implementing the curriculum many schools were only concerned with preparing students for examinations. In contrast, the current reform aims to develop a more flexible "multi-track system".

The 1985 decision to restructure the education system also started the reform of the structure of senior secondary education by introducing vocational schools into the senior secondary education system. The technical and vocational schools at the senior secondary level provide technical and vocational training of a varying length to those graduates from junior secondary schools who are unable to continue their study, and so all new employees from both rural and urban areas will have access to the necessary training before taking up a post.

The further restructuring of senior secondary education seeks to develop a diversified structure of senior secondary education in order to produce various types of qualified personnel required by modern society.

First of all, the Central Committee of the SEC has redefined the nature and functions of senior

secondary education. While senior secondary education is still a part of basic education, so that its goal should encourage students to achieve all-round development in accordance with the general education policy, it should also allow students to be streamed towards different orientations.

Key schools could mainly concentrate on preparing their students for universities (even for key universities;) while ordinary schools are more involved with both providing vocational training as well as academic studying.

School for the below average students are encouraged to pay increasing attention to vocation training while students' all-round development should also be emphasized. However, the existing specialized vocation schools are also included in senior secondary schools such as vocation schools, middle specialized schools and middle technical schools, all these being responsible for preparing skillful personnel at senior secondary level. Regular senior secondary schools are also encouraged to try to develop more specialized optional training programs to foster brilliant candidates who will aim for future advanced study at university. A new streaming system has also been tried out at junior secondary level, an integrated nine-year school system being encouraged by the government, particularly in urban areas. This approach allows the school to focus on the students' all-round development to fulfill the goals of the nine-year compulsory education.

The "5+4" system, that has been tried out for years, has also been introduced as an alternative approach. Junior schools have introduced vocational education in their local curriculum, and have tried out various streaming systems such as "2+1", "3+1", and even "1+2". This not only allows those disadvantaged groups to be able to access the nine-year compulsory education, and reduce the drop-out rate, but also helps make junior secondary education more relevant to local economic development.

Impact of the changes

The reforms mentioned above has resulted in a significant change in the system of secondary education in China.

In order to implement and monitor the reform of secondary education as mentioned above, a series of strategies have been taken:

1. The Chinese government has placed education as a top priority in its development strategy, as part of the socialist modernization drive. It is seen as very important in mobilizing the whole society to be involved in the reform process.

2. The top institutions make a series of strategic guidelines and legal guarantees for educational reform.

Following a decision in 1985 the Chinese government enacted the "Outline for Reform and Development of Education in China in 1993", which specified the strategic goals, guiding principles and major policies of China's education reform and development for the 1990s and during the early years of the next century. In 1994, the National Conference on Education was held, which gave overall instructions on general mobilization for the implementation of the targets and tasks specified in the 1994's "Outline". This conference is considered to be a milestone in the history of educational development in China.

A series of education laws have been promulgated such as the "Law of Compulsory Education of the People's Republic of China"(in 1986), the "Law of Teachers of the People's Republic of China" (in 1983). In March 1995, the 8th National People's Congress of the People's Republic of China approved, at it's 3rd session, the "Education Law of the People's Republic of China", which provides legal guarantees for the state to grant top priority to education and to enact a series of reform measures.

3. The change process has been carefully planned, and introduced, step by step.

During the first phase (1985-1994) of the reform, priority has been given to re-structure the education system. The new education system has gradually resulted in a new overall structure that has enabled the other reforms to be introduced smoothly. At the same time, nine-year compulsory education has also been implemented. The new curriculum of the secondary has also been developed, and after being tried out in a few school districts, has then been introduced into all schools.

For senior secondary, the priority has mainly been given to the development of post-junior secondary vocational education. When the second phase reforms are initiated, main targets for the reform of secondary education are this: by the end of the century, nine-year compulsory education (including technical and vocational education at junior secondary level) should be universal across the whole country, it having been stressed thus "This is the key point in the key points". On this basis, senior secondary education should be universalized in those large cities and economically developed costal areas. At the same time, a new curriculum of senior secondary will be designed and shortly tried out.

4. "Bottom-up" strategy and research based reform.

Although it has been the central institutions that have initiated the current profound reforms, most new ideas and innovations have come from schools or local educational institutions. In this regard, the research based strategy of education reform has played a very important role during the whole process of reform, while the new education system has created a more open "environment" that encourages educators to try their new ideas.

5. Establishment of a monitor system to evaluate and accept the educational reform.

A series of evaluation systems have gradually developed to promote and control the reform process, particularly in order to encourage local officials to implement reforms to measure their achievements in the implementation of educational policies, and to also evaluate the success of the concerned institutions.

Key issues for the further improvement of secondary education.

The reform process has entered a new stage, there being several key issues for deepening and continuing the current reform of secondary education, these being:

1. To improve the new education system and the new schooling system;

2. To develop and improve the new curriculum for the changed education system.

The new curriculum has been developed for all students involved in the nine-year compulsory education, with the core curriculum being reduced and simplified. But the heart of the problem is how

to develop significant, powerful knowledge, skills and thinking tools for all students without following a track program that focuses on minimal routine knowledge and skill for the majority and advanced knowledge for only a few. The existing senior secondary curriculum is facing the same problem. It has been suggested that vocational training be introduced into all levels of secondary education, but the challenge is how to keep the balance between specific skill training and all-round development. Problem solving, enterprise education and critical thinking will certainly be integrated into the curriculum, but how to best implement them is still not clear. In addition, moral education is also one aspect of curriculum development that needs to be handled in a particularly sensitive way.

3. Steep increase in demand for qualified teachers.

It is difficult to build up a sufficient number of qualified administrators and teachers to run the schools and teach the students at a time when the boom of secondary education is booming. Teachers also need to be provided with more advanced training programme that are relevant to their profession, and they need to be committed to teaching in the new system. There have been some innovative programmes of teachers' training (both pre-service and in-service), developed to accommodate these needs themselves, but it might be necessary to re-evaluate the programmes themselves so developed because teachers trainers themselves are facing the same types of challenges.

Conclusion

The first phase of reform was mainly concerned with reform of the education system, a flexible framework being created in which the more profound reform has followed. The "Outline" put forward the guiding principle for the second phase in which Chinese educators will deepen the reform already initiated in order to establish an education system with truly Chinese characteristics. Along with such general development, the secondary education has also been restructured. When reforms enter the second phase, nine-year compulsory education should become universal across the whole country. On this basis, efforts should be made to universalize senior secondary education in large cities and in the economically developed coastal area. The key issue is how to develop a relevant, integrated and balanced curriculum for those living in the years beyond 2000.

Indonesia

Background

The 1945 Constitution, article 31 says that (1) every citizen has a right to education, and (2) the government should establish an educational system in accordance with the constitution. In addition, the State Guidelines for National Development (GBHN) of 1993 and Law No. 2 on the National Educational System provide the government with some guidance in developing education according to a system of National Education.

It is stated in the constitution that the basis for national education is Pancasila (the Five Principles) and the 1945 Constitution; while the functions of National Education are to develop ability and improve the quality of life and dignity of the Indonesian people to realize the national objectives.

There are three main levels of education in Indonesia: basic education, secondary education, and higher education. There are two levels in secondary education: Junior and Senior Secondary Schools.

In senior secondary schools there are two types: General Senior Secondary School and Vocational Senior Secondary Schools, both involving three years of schooling. These types of schools are run by both government and privates enterprise.

Changes in Secondary Education

At the beginning of 1994/95 up to the year 2018/19, Indonesia will enter into its second 25 year development plan (1994/95 to 2018/19) namely Pembangunan Jangka Panjang Kedua (PJP II). This is the most determinative phase to take place in Indonesia's development period in what has been called the take-off era. The most significant nature of PJP II is the strong emphasis placed on human resource development.

Secondary education aims to: (1) upgrade the knowledge of students to prepare them for further education and develop their capacity to cope with the development of science and technology; and (2) to upgrade the capacity of students, to prepare them to become members of society possessing capabilities to undertake mutual interaction with their social, cultural and environments.

The priority of the General Secondary School is to prepare students to be able to enter university and institutes, while Vocational Secondary Schools aim to enable students to enter the world of work and to develop appropriate professional attitudes.

In conjunction with the human resource development several changes have occurred with regard to secondary education.

General Secondary Schools

It was stated in the 1993 State Guideline that human resource development is meant to achieve sustainable national development in order to achieve industrialization. In this regard the acquisition of science and technology by students is seen as being the most important factor.

In line with this direction, in the 1994 curriculum streaming occurs up to grade 3, one year later compared with the previous GSS curriculum. This is to ensure that each GSS student will have more time to be exposed to science and mathematics subject matter. By reorienting this curriculum, it is expected that quality of schooling will improve particularly in the areas of mathematics and science. It is intended that those students who are most capable in mathematics and science will enter the science streams in other students going either to the language or social studies stream with accordance to their capabilities and interest.

Vocational Secondary School

As was stated earlier, the VSS aims at preparing students to be able to enter the world of work.

Based on available data, about 60.5 percent of VSS graduates find employment in the labor market, which is lower than what has been expected. Some problems concerning the job participation rate of VSS graduates are created due to a lack of student skills and capabilities, and the gap between the skill level of graduates and that needed in the world of work.

In order to reduce such gaps, the "dual system" of education has been introduced. That strategy involved aims at providing a conducive situation where curriculum planning and implementation, as well

as the distribution of VSS graduates, should be conducted cooperatively among the various stakeholders and relevant institutions. What is particularly needed is the active and real participation of society and industries.

It is expected from this strategy that agreement will occur about the type and level of skills needed in their respective regions. In the implementation of curriculum involvement of industries and others in society is expected to provide training for students in terms of their full capacities.

Since 1994, the dual system strategy has been conducted on a pilot basis which covers five VSS from different provinces, while the remainder of the VSS have been directed to adjust toward that strategy without neglecting real conditions of their environment.

The Teaching-Learning

In implementing a curriculum it is noticed that teaching-learning activities play an important role in achieving the objectives of curriculum which in turn will lead to the fulfillment of national education goals.

Most of the teaching-learning activities in the class room have been dominated by rote learning or memorizing of facts. Students are not able to transfer knowledge into real situations. A decade ago, efforts were made to introduce the so called Active Learning Approach which was incorporated with the implementation of new curriculum. Through this approach students obtain knowledge through observation and the collecting of data from their environment which is then analyzed and conclusions drawn based on the data gathered. These kind of teaching-learning activities could produce better understanding on the part of students and encourage them to be active, creative and critical both mentally and physically. The Active Learning Approach has been introduced to teachers through various in-service training course that were held by the Centre for Teacher Training (PPPG), the Board for Training the Teacher (BPG), and Teacher Centre (PKG).

Some impact which might be related to the latest changes

The extension from 6 to 9 years universal basic education aims at extending the knowledge and skills of students which are needed for their effective living in the era of industrialization and globalization.

The policy of 9 years universal basic education might cause an increase in student enrollment to JSS. In anticipating those situations some new buildings and new classrooms for JSS have been build, while the management of open JSS and out of school programmes have been adjusted in order to cater for more students who do not enroll in the JSS due to problems associated with school capacities. Moreover, the recruitment of new teachers and the provision of teaching-learning facilities should be done in order to support the implementation of 9 years universal basic education.

Most parents in rural areas, in particular those who are economically weak, tend to allow their children to undertake activities for earning money rather than pushing them to enroll in school. Therefore, the awareness of the parents and that of the members of society, about the importance of 9 years universal basic education, needs to be taken into account.

The implementation of the 1994 curriculum for GSS and VSS is meant to improve the quality of

education in the sense of preparing students to be ready in coping with the industrialization and globalization era, which require capabilities in science and technology.

Emphasizing mathematics and science in the GSS curriculum and streaming in grade 3 are in accordance with efforts to equip students in those subjects. Consequently, all students during grades 1 and 2 should follow all required subject matter including mathematics and science.

In implementing the dual system for VSS, several collaborations have occurred between the Ministry of Education and Culture, Ministry of Manpower, Ministry of Trade, Ministry of Industry and House of Commerce as well as with the private sector. Technical collaborations have also occurred, such as in determining student competencies and elaborating the curriculum into lesson plans. Some private industries also provide opportunities for the student to undertake part training in industry.

Key Issues

1. Nine years Universal Basic Education is meant to provide basic knowledge and skill as a foundation for improving the quality of human resources. At the same time it is expected to increase student access to nine years Universal Basic Education. The challenge is how to achieve universal education as mass education while at the same time improving the quality of education.

2. Improving the quality of secondary education seeks to produce qualified human resources to fulfill national development goals in the industrialization-globalization era. According to Law-Number 2, 1989, linkages between educational institution and other relevant institutions as well as the environment should be strengthened, it becomes a challenge to ensure that all are aware of this matter.

3. To cope with rapid change, the management of educational implementation should be flexible in order to provide adequate authority for schools and local administrators to make quick adjustments. Such flexibility is intended to make education more efficient, relevant and effective.

Concluding Statement

1. In order to cope with rapid changes in the information and technology era reform of the curriculum should: protect the culture and environment; enhance intellectual capacity and skill; and the encourage creativity and flexibility of students. Curriculum reform should also consider the capacity of the country to afford and absorb the impact of the intended changes.

2. The curriculum should be designed with flexibility in mind. An incremental change can then be made in order to enable quick adjustment of some element of the curriculum to be made in such areas as science and technology education.

3. Curriculum change will have no meaning if it does not bring about change in classroom activities. Teachers and stake holders should also be aware of, and consistently support, the implementation of the curriculum.

Iran

The Reformed Secondary Education

There have been deficiencies in the traditional patterns and content of secondary system for which the new system should be able to find the best alternatives. Major deficiencies have been as follows

- The talents and interests of students were largely ignored with the traditional system lacking enough flexibility to respond to these parameters.
- There has been a major emphasis on the preparation of total students to enter universities, therefore, increasing the number of university candidates every year.
- New curriculum has focused on theoretical subjects and ignored practical ones, while the structure and content of the curriculum were also inappropriate for rural and small town conditions.
- Secondary education was insufficient in fulfilling regional needs and inflexible in absorbing innovations.
- There was a loss of capital and resources due to school dropouts, and the high number of grade repetitions. It was also difficult for those who had interrupted their studies to return to continue their education again.
- Propagation of the importance of theoretical education in comparison with TVE through: lack of proper guidance and leading the unwilling students to TVE; executing methods that result in the TVE to be less important; disregarding the environmental facilities and needs; and lack of relations between society and educational facilities.
- The lack of an interrelationship between TVE, short term specific training courses, technicians, and bachelor degrees.

Since it was aware of the deficiencies of the secondary education system, the Government started to reform secondary education in 1992. The Government planned for full implementation of a reformed system by the end of the Second Five-year Economic Development Plan. The main aims of the reformed system were: improvement of internal & external efficiency, a reduction of costs, greater accessibility of education; The modernization of curriculum and teaching materials have been of major concern.

Kar-Danesh Branch

The aim of this branch is to train supervising human resources with regard semi-skilled, skilled, foreman, and prior supervisory-type workers. Students can obtain their second class skill certificates after they have passed thirty-two credits of skills modules (or receive their first class skill certificates after passing forty-eight credits of skills modules). They can also obtain their diplomas in the same field provided they pass forty-eight credits of general subjects.

Skill certification, along with the high-school diploma in technical and vocational fields, and technician degree in the educational system, have made high skill standards possible, even though in the traditional system there was no interrelation between these two and so each acted differently.

It should be noted that with certain requirement, out of school learning has been effective in assisting students' social adjustment, occupational awareness and skill learning. Such kind of learning will have the following outcomes and benefits: a tight relation between educational institutions and work market; allocation of skill training resources to the Ministry of Education; changes of social attitudes towards TVE and promotion of its prestige; improvement of employers' knowledge and skills in private workshops because of development of their competencies; being beneficial for students who have to leave school for job, and then return to educational centers for completion of their education, this technical learning also being helpful for their job advancement; accessibility of TVE for girls; and provision of the corporation opportunity for private schools and public and private institutes.

Both graduates of secondary schools and dropouts of the course alike are able to continue their studies, having an opportunity to leave the school for some period, without any penalties, under the supervision of the Ministry of Education. Through the traditional system, such courses can be taken only when the graduates or drop outs have taken their military service.

Learning skills as a part of education received at the secondary level have the following advantages: these are the social, cultural, and economic prestige of skill training is improved; education will become closer to the real life situations, especially for those who do not want or are not able to continue their studies for some reasons; the general and theoretical education is less focused; there is more accreditation between curriculums and social and regional needs through modular training; and there is stronger emphasis on aptitude and interests of learners.

Impact of Change

The transforming process has been so designed as to cover the principles, policies and objectives of the comprehensive educational system. The following issues have been of major concern:

1. The trends is for higher education to become more flexible; courses being accredited according to the needs of the country, individuals' talents and interests; and the environmental conditions. Society needs have been responded to; and future changes have been regarded through the innovations and appropriate changes;

2. Appropriate opportunities have been provided to promote and expand the quality and position of TVE;

3. Appropriate facilities have been provided to utilize all environmental facilities for the implementation, utilization, and consideration of informal knowledge;

4. Facilities that are necessary for the optimum utilization of courses have been provided, which has resulted in an avoidance of wasting time and a loss of social facilities and capital;

5. An appropriate environment has been provided to train faithful, creative, responsible individuals which are suitable for sustaining future changes;

6. Proper grounds and facilities have been provided to make secondary education of central importance important in terms of the development of the country as a whole;

7. A variety of different opportunities have been provided to reduce the number of university

applicants and to provide a more suitable range of circumstances to select the most talented ones for higher education.

Japan

Overview of Secondary Education

Until the end of World War II, a "multi-track" education system was in force in Japan. After the war, under the Fundamental Law of Education and the School Education Law, which were enacted in 1947, a "single-track" (6-3-3-4) system was established.

Lower Secondary Schools

All children who have completed elementary school are required to study in lower secondary schools for three years until the end of the school year in which they reach the age of 15. Lower secondary schools give children between the ages of 12 and 15 a general secondary education that is suited to the stage of their mental and physical development and builds on the education given in elementary school.

Upper Secondary Schools

Those who have completed nine-year compulsory education in elementary and secondary school may go on to upper secondary school, students normally taking entrance examinations to enter upper secondary school. Approximately 97% of children completing lower secondary school go on to upper secondary school. In addition to full-day courses, there are also day/evening and correspondence courses, all of these courses leading to a certificate of upper secondary education.

Depending upon the content of teaching provided, upper secondary school courses may also be classified into general, specialized and comprehensive courses (Sogo Gakka).

Current Situation of Upper Secondary Education

After the postwar education reforms, upper secondary education in Japan was radically transformed from the pre-war multi-track system to a single track system, equality of opportunity in education becoming the ideal to be pursued. In the years immediately after the World War, Japan's economic exhaustion prevented in upper secondary education from making great progresses. However as economic conditions improved in the mid-1950s, the percentage of students proceeding onto upper secondary school began to rapidly increase.

The period from the beginning of Japan's high economic growth in the 1950s to the first oil shock in 1973 witnessed a rapid popularization and universalization of upper secondary education in Japan. This quantitative growth did not, however, bring with it a qualitative enhancement. Beginning in the late 1970s, public concern focused increasingly on the problem of "exam competition", involving children at early ages, this being symbolized by the proliferation of private institutions geared to supplementing regular classwork and preparing students for entrance examinations.

In the 1980s, school violence, corporal punishment, and bullying caused a stir amongst the mass

media, a recent problem of special concern being a rapid increase in the number of children who refuse to attend school. There seems to be no end to the phenomenon of children who feel a stifling atmosphere in school and so opt for extended periods of absence. At the upper secondary school level in particular, the dropout level has reached around 100,000 students per year. There are also other students who although they do not go so far as to drop out, they do not see any meaning or purpose in their upper secondary education and so they are only enrolled reluctantly or involuntarily.

Public opinion is largely in agreement concerning the distortions and wavering that afflict upper secondary education, while elementary education in Japan widely regarded as being a highly efficient system that achieves the twin objectives of providing egalitarian education and cultivating talent, there is considerable criticism of secondary education (especially upper secondary education) the realities of which pose a number of serious problems.

Trends in Educational Reform

No fundamental resolution has been found to these problems, which have been accumulating since the 1960s, despite the repeated calls for greater "diversification, flexibility and individualization".

While some reports have offered many thought-provoking suggestions on the problems to be addressed, it was not until the mid-1970s that upper secondary education reform began to proceed in a truly new direction, symbolic of the new approach to reform at that time being the widely noted call for "new types of upper secondary school".

In July, 1975, the Upper Secondary School Issues Project Team was established by the National Conference of Prefectural Education Superintendents to deliberate new modes of upper secondary education. The project team report noted that as upper secondary education became universal, both educational contents and methods, and teachers' patterns of thinking, were not sufficiently responding to the reality of the diversified body of students.

The theme of the new types of upper secondary schools were also given renewed attention by the Central Council for Education in its April, 1991 report entitled Educational Reforms for the New Era. In this report, the Council noted that new types of schools could serve as pilots studies for reform projects, and then went on to call for the development of a comprehensive and integrated curriculum. This proposal is a main feature of the forthcoming report of the Committee to Promote Upper Secondary School Education Reform, public attention continuing to focus on the details of new reform plans, as they are presented, and on the ways in which these plans are being implemented.

Perspective for Upper Secondary Education

While the three types of school reforms discussed in this paper (i.e. comprehensive upper secondary schools, credit-based upper secondary schools, and comprehensive courses) represent only a fraction of the efforts being made to reform upper secondary school education Japan, it is nevertheless possible to see in these cases the basic structure of the problem currently confronting the reform movement in Japan. What is required is the development of a plan that includes a statement of the philosophy which is guiding upper secondary school education reforms and which encompasses a range of issues including curriculum review. At the same time, it must be remembered that there is no panacea for problems faced by high schools throughout the country, just as there is no single mode of reform

applicable to every country. The point at which Japan must (for the first time in its history) develop a truly Japanese system to respond to the challenges posed to upper secondary school education in Japan has now been reached.

Reform and the Future of Research

In the context of the arrival and growth of a highly industrialized society, we have come to recognize the importance of respecting multi-dimensional values. The catch-phrase about emphasis on individuality or the realization of a life-long learning society arises out of this kind of social and historical background. The reform of secondary education also seems likely to be promoted in accordance with prevailing trends although as has been mentioned above, it cannot necessarily be said that the reform of upper secondary school has changed the structure of the entire system into a form that readily tolerates multi-dimensional values. For example, although administrative responses have already taken place, the fact is that the number of cases of persistent refusal to attend school continues to increase rapidly. It can therefore be said that the reason why reform to date has been only partially successful is because insufficient critical attention has been focused on the prevailing fundamental view of schooling in Japan.

Although Japan achieved the universalization of secondary education at early stage, the harmful phenomena that manifested itself during this process must not be overlooked. Economic growth was undeniably achieved, but this brought with it significant environmental deterioration. And Japan has not given sufficient consideration to the "weaker members" of society. The need from now on, therefore, is to re-examine the organization and content of schooling from the perspective of the "coexistence of man and nature", and to address the many internal and external problems faced by Japan. The first step toward achieving this aim must be a thorough and frank examination of the reality of conditions in Japan, including an investigation of problems faced by other countries in the region with a view to Japan learning from the experience of others.

Lao P.D.R.

Introduction

After national liberation in 1975 the Government of Lao P D R. set up a unified education system throughout the country. Education was determined as taking a central role in the ideological and cultural revolution and Lao language was determined to be the official language to be taught in schools.

General education (11 years of schooling) is divided into primary education (5 years) lower secondary education (3 years) and upper secondary education (3 years). The first 5 years of schooling is compulsory.

Changes in Secondary Education

In Lao P D R, Secondary education has witnessed a substantial quantitative expansion in the past decade this being characterized by:

- Building up a secondary school system with a work education, polytechnical, pre-vocational and professional orientation; and

- Improving learning and teaching methodologies.

Despite this quantitative expansion, the educational curriculum is not designed to adequately equip young people with vocational skills and so it is criticized as being too academic and theoretical. It is widely accepted that it tends to exclusively prepare students for higher education paying little or no attention to those students who require entry level work skills. As a result, some secondary education leavers are both unemployed and unemployable. Since access to higher education is limited, large numbers of secondary school leavers have no place to go, either to work or onto continued education.

Secondary education is a crucial link in the educational system between the Primary School and Higher Education and the world of work. With this in mind, the Government set up in 1985, a new policy on education reform called *"Education Strategy from now up to the year 2000." This education policy was adapted in 1986 and 1991. It aimed at improving education quality, enhancing the education structure and making education correspond to the demands of the socio-economic development of the country. The curriculum and instructional programmes were required to equip young people with not only academic abilities but also with vocational aptitudes, social skills, moral and ethical values.*

As a commencing strategy for the change and reform of secondary education, the Ministry of Education changed the Department of Pre-school and General Education (D.G.E.) and the Research Institute for Educational Science (RIES) to implement work-education in General Education at the secondary school levels, and to improved the quality of student learning and general performance.

Impact of the Changes

Although these changes are still in the planning stage, there have already been changes in the behavior and attitudes of parents and students, there being a more positive feeling towards education.

Key Issue for the Future Improvement of Secondary Education

1. The organizing of seminars on the writing of new lower and upper secondary textbooks should be accomplished in 1996. Further more, there will be a programme of linking schools to the socio-economic development of localities. Teaching vocational subjects such as handicraft, sewing and cooking will be stressed.

2. Reforming teaching and learning methodologies at the secondary level in order to enhance student centered methods of teaching, will be a priority.

3. Improvement of administration mechanisms at various levels and the adopting of more effective approaches (such as monitoring and supervision) to ensure provision of a quality education across the country will be emphasized.

Conclusion

The main lessons that can be drawn from the country's efforts to reorient and reform secondary education are:

- The need for co-ordination of all sections of the education system;
- Recognition of local needs;
- Organizing Resources. The government budget, that of Ministry of Education, and resources from international funds organizations all need to be coordinated, this including loan funds from the Asia Development Bank (A.D.B) and World Bank (W.B.).
- The need to identify more clearly and more specifically manpower requirements.

Malaysia

Introduction

Malaysia has a system of formal education that involves 6 years of primary, 3 years of lower secondary, 2 years of upper secondary and 2 years of post secondary education. In terms of secondary education, there are three levels involved;

Lower Secondary (Forms 1-3)

On completion of primary education, pupils enter the Lower Secondary Level for 3 years. Those from Chinese and Tamil media primary schools spend a year in the Remove Class (Transition Class) before entering Form I. The lower secondary schools provide three years comprehensive education, at the end of which students sit for the nation-wide Lower Secondary Assessment (LSA) which determines their progress to the upper secondary school level.

Upper Secondary (Forms 4-5)

At the upper secondary level, education is more specialized with students having the "choice" of entering the science, arts, vocational or technical streams. In 1994, for example, 62.44% of the secondary school students were enrolled in the Arts Stream, 18.98% in Science, 14.48% Vocational and 1.19% in the Technical areas. At the end of the second year of upper secondary schooling, students sit for the Malaysia Certificate of Education (MCE) or Malaysia Certificate of Education (Vocational) Examinations, an examination which is equivalent to the British GCE "O" level.

Post Secondary (Pre-University)

After completion of upper secondary education, those selected on the basis of their performance in the M.C.E Examination, undertake 2 more years of education at the post secondary level: that is, Form Six Lower and Form Six Upper. On completion of the Post Secondary Education, pupils sit for the Higher School Certificate (H.S.C) Examination which is equivalent to the G.C.E (A levels). Performance at this examination determines entrance to local as well as to accredited foreign universities and colleges. Besides the Sixth Form courses, additional matriculation courses are also organized to prepare students to meet specific entry requirements for either local or foreign universities.

Education Reform

Malaysia has given top priority to education and so, has invested substantially into enhancing the quality and availability of public schools, this being an important part of her effort to achieve social, economic and political development.

The country is entering into a new phase of industrial development and so, adequate preparation has to be made to meet the global economic and political changes of the 21st century. It is felt that Malaysia needs to develop a large pool of citizens who are highly talented and capable of adopting and adapting to any changes that may occur, and who can withstand pressures created as a result of global transformation. Ensuring a system of education that is of the highest quality is one of the main ways of producing high quality Malaysian citizens in the future.

The end of 1990 saw the introduction of a more rigorous plan for the development of the country in general, and education in particular. Thus the Ministry of Education Malaysia has reviewed its mission, and refocused its strategies to meet that mission. Strategies have been formulated and various creative, visionary and future-oriented education programmes designed for its people to move forward and keep up with future changes. In this respect, the recent restructuring of the Ministry of Education has resulted in the setting of new priorities regarding curriculum development, streaming and teaching methodologies which are congruent to Malaysia's Vision 2020. In terms of projected skilled labor needs, and in line with industrialization policy, and the expansion of service industries, human resource development will be a major thrust in Malaysia's plan towards achieving its socio-economic objectives.

Curriculum Changes

The aim of the revised integrated curriculum for secondary schools is to further develop the potential of individuals in a holistic, balanced and integrated manner, in order to fulfil the intellectual, spiritual, emotional and physical needs of students.

However, greater emphasis has been given to business-related and pre-vocational subjects. Teaching methodologies have been reexamined, and a multi-approach strategy is advocated, that is more child-centred, activity oriented, and which aims at making the teaching-learning process more effective, meaningful and enjoyable.

Thinking and learning skills have been incorporated into the secondary school curricula. To enable young Malaysians to keep abreast with the latest technologies, Computers in Education, Creative Design, Innovation and Inventions are newly introduced subjects in the secondary school curriculum. Teachers are expected to master and use various methods to impart the new technologies and skills to the students, and they are also expected to be creative and innovative in their teaching approach to ensure that future generations are well-prepared and equipped with adaptive skills to face the challenging and changing needs of the future labor market. The teaching of Computers in Education is expected to lay a strong foundation for a computer literate society as well assisting in the creation of a culture oriented towards knowledge and information.

Access and Participation of Disadvantaged Groups

Gender emphasis is being given to schools in rural areas. In 1994, for example, out of a total of 1437 secondary schools, the majority (60.4%) were rural schools with a total enrolment of 1,566,973 students. There is higher female than male participation at the secondary level, this being, 51.04% and 48.96% respectively. In addition, overall there are more female than male teachers.

Intervention programmes to provide equal access to secondary education for the rural population, that are implemented according to the recommendations of the New Economic Policy (1970-1990) have

been extended in the New Development Policy (1991-2000). Amongst the successful programmes developed is the institution of residential schools for secondary school students, to date there are residential schools that emphasize science subjects and Islamic Religious education. Qualified students particularly from the rural areas, were deliberately selected for entry into residential schools. The students were fully financed by the government. Deserving students from the residential schools who obtain good results in the Malaysian Certificate of Education are given preference for scholarships to pursue tertiary education either within the country or abroad. Following the establishment of special boarding schools that provided free tuition and boarding, most of the comparatively poor Malays living in the rural areas of Malaysia support the idea of sending children away from home to pursue their education. This is still considered to be one of the major opportunities to escape poverty, since in most cases parents in the poverty-stricken rural areas of the country are in no position to finance their children's progress through primary, secondary and tertiary education.

The benefit of schooling is being extended not only to the underprivileged, in terms of immigrant children and those from minority groups, but also to the handicapped, a large number of these underprivileged children being placed in normal stream classes in ordinary schools. Planning for the introduction of inclusive education, as well as provision for the education of aborigines, both of which formerly under the purview of the Aborigines Affairs Department, have been given special emphasis in the Seventh Malaysia Plan (1996-2000).

Other challenges have also been identified and various strategies implemented, these including: greater financial allocation for the construction of schools, hostels and teachers' quarters; and, various support schemes such as the textbook loan scheme, food and milk aid, financial aid, provision of school uniforms and shoes, and health care programmes.

Key Changes of the Future

Upgrading of Teacher Qualification

In order to help meet the increasing demand for teachers (particularly in secondary schools) the number of places for prospective teachers in local universities has been increased, scholarships being offered to deserving students to pursue a career in teaching. Diploma of education courses are offered in the 31 teacher training colleges across the nation; while staff development programmes for school administrators, master teachers and specialist teachers in Mathematics, Science and Technical subjects (both abroad and in the country) have been instituted by the Ministry of Education for these groups to gain exposure to new skills and upgrade the teaching-learning capabilities of the classroom teachers.

Upgrading of Vocational Schools

In addressing manpower needs as part of a long-term strategy to meet the demands of technical manpower, while encouraging more students to choose engineering and science related careers, the government has approved the restructuring of all 69 secondary vocational schools to secondary technical schools. This project will be carried out in various stages beginning in 1996; and will see the provision of a sufficient number of students who will be equipped with science, technology and mathematical skills to serve as a supply base for the nation's long term technical manpower needs. When coupled with the development in science and technology, this strategy will represent a paradigm shift in attitude towards

science- and technology-related subjects and ensure greater participation in these subject areas at school level. The training of lower-level vocational skills will therefore be no longer handled by vocational schools under the Ministry of Education but will instead be run by institutes under other Ministries and by the private sector.

The importance of providing a quality education in Malaysia is stressed by addressing the persistent issues that particularly relate to science and mathematics, understanding the environment, values education, life experiences and learning skills, more effective school management and overall delivery systems, and the most efficient utilization of educational resources. Hence, reforms in the areas of educational management and administration have been introduced to increase the level of efficiency.

One of the outstanding features of this reform is the integration of the corporate management concept in strategic planning and in the development of problem solving techniques. 'Zero-defect' in productivity and quality is advocated, the main areas of concern relating to leadership and management styles, organizational unity, caring services, empowerment, systems for effective monitoring, developing of a knowledge based culture, caring school environments and the inculcation of a culture of excellence.

The content of the syllabuses and pedagogical approaches is being strengthened to meet manpower requirements for the nation's industrial growth and development. A more organized and diversified curriculum, with a balanced emphasis on general education and the vocational and technological aspects of knowledge and skills is required, the inculcation of universal moral and religious values also need to be explicitly addressed.

The specialization of certain technical schools according to industry location is also being given due consideration. This will provide the advantage of industrial exposure to the students since it will facilitate practical training and attachment programmes with industries. In this regard, there will be a wider linkage and dissemination of information on various vocational and industrial training programmes to the private sector.

Conclusion

Education is not only a basic human right but also a means of enhancing the productive capacity of a country, by increasing the profitability of investment in physical capital and basic infrastructure. These investment choices should be concerned with the question of "*how*" rather than "*whether*" education can contribute to growth. Malaysia has gone a long way in setting its priorities in to ensure that every child has the right to education, regardless of race and creed, and to achieving a fully developed nation by the year 2020.

For the Malaysian economy (and industry) to be internationally competitive, it will need a highly skilled but flexible workforce that is not only capable of coping with present job requirements but also with responding quickly to the demands created by technological and structural changes which require new knowledge, skills and innovations. To achieve a workforce of this caliber will require a more efficient and responsive education and training system which is more attuned to the needs of industry.

Nepal

Background

Secondary education in Nepal has not traditionally received a high priority, The government has concentrated in recent years on primary education, this being likely to continue. But it is also widely agreed that a strong, efficient, post primary education, in all its aspects, is essential for Nepal to make the best possible use of its manpower and resources.

The Structure of the Education System

The education system comprises five years of primary and five years of secondary education, school education terminating after grade 10 with a national school leaving certificate examination (SLC).

Major Problems

Secondary education is afflicted with many interrelated problems, the following being the major difficulties affecting the subsector:

- The distribution of secondary schools is not even throughout the country, there being a disproportionate concentration of secondary schools in urban areas;
- There are major problems of access to the system, both physical and financial;
- The participation of girls and minority ethnic groups is very low, boys greatly outnumbering girls in many schools;
- Secondary education in Nepal is not entirely relevant to the employment or developmental needs of the country, either at the local or national levels. The curriculum is content-orientated, and teaching emphasizes rote learning;
- Secondary education is far too exam-orientated, the examination and evaluation systems being traditional and ineffective in shaping the improvement of quality;
- Many school buildings and facilities are obsolete and unusable;
- There is a huge drop-out and wastage problem;
- There is no smooth or systematic transition from secondary education to higher education, despite the fact that secondary education is mainly geared for entry to higher education;
- The supply of teachers is a cause for concern, especially with regard to a shortage of qualified and trained teachers;
- Investment in secondary education (both public and private) is relatively inadequate, primary and higher education having traditionally received the majority of donor aided funding. Quality education, and its resulting internal and external efficiency, has hardly received any resources at all, HMG providing salary support, pension and some other facilities to the secondary education. Expenditure for quality improvement, such as with regard to textbooks, teaching aids and teacher upgrading is generally beyond its means. Thus, although an attempt at mass education has been made, the quality of human resources development remains low;
- Although analysis indicates that Nepal does not suffer alone from serious under financing of education, its problems are compounded by inadequacies in the management, productivity and supervision of the sector, this being intensified by economic and socio-cultural pressures that have lead to relatively high drop-out rates, and grade repetition rates. In terms of external efficiency,

the secondary education system is inadequately linked to the world of work, while management and supervision of education is currently inadequate to meet this challenge;

- Headmasters are not adequately trained for the job and the DEOs offer little or no effective leadership. The supervisors at present undertake very little supervision, then having a low status in the eyes of their peers in secondary schools, little or no financial support for traveling and they are generally too few in number to be effective;
- The School Management Committees are pivotal agencies for Nepal's educational prosperity, although its powers and functions have at times been obscured or misunderstood;
- As there is very little substantial administrative support from the government, it is no wonder that schools do not appoint administrative personnel in sufficient numbers. Even well-endowed schools have a skeleton staff to collect fees, to perform other minor jobs, to guard the school premises and to keep them clean. As a result, reliable records on students is difficult to be maintained, accounts are likely to be marred by irregularities and statistical data is conspicuous by absent;
- Educational planning lacks a viable mechanism for coordination at each level, and specially at district and school level.

Curricula

The objectives of the education provided in grades 6, 7 and 8 are to develop: character; a respect for labor to cultivate the habit of working; and, to prepare students for entry to secondary education. The objectives of education provided in grades 9 and 10 are to: prepare citizens who are capable of making a contribution to the all-round development of the country; and, to impart basic knowledge for obtaining higher education.

Higher Secondary Schools

The government has introduced a 10+2 system into selected secondary school, which is in keeping with similar developments in neighboring countries. The plan is to support the development of 10+2 schools in both the remote districts and urban areas.

Secondary and Vocational Education

While Primary and University education are end to end interfaces with secondary education, technical and vocational education is a parallel system. At present there are a wide variety of agencies, coordinational by the Council for Technical Education and Vocational Training (CTEVT), involved with technical education and vocational training.

Non-formal Education

In Nepal, Non-formal education activities encompass two groups of persons, these being: adult illiterates in the age group 15-45 years, and, out-of-school children and school drop-outs between the ages of 8-14 years. National and international non-governmental organizations, engaged in non-formal education, have been extensively mobilized in view of the active role they can play in this area.

Teacher Training

After the introduction of the National Education system plan in 1971, major change occurred in the teacher training programme. For instance, permanency of tenure for a teacher was made conditional upon the possession of a requisite teacher training certificate, and the pay scales for trained and untrained teachers were differentiated. The pay scale for trained teachers was revised to equate it with other professionals having the same degree, this having the effect of producing an increased demand for places in teacher's training programmes.

Secondary Education Development Project (SEDP)

The Secondary Education Development Project began in 1993 to improve the quality of secondary education. It is a six years project designed to support the government's development goals by improving the quality and efficiency in: Curriculum and textbook development; Teacher effectiveness and competency; Teaching/Learning assessment; Supply of books and laboratory equipment; and Strengthening subsector planning and management system.

Secondary Education Development Units (SEDU)

A network of 25 SEDUs (Secondary Education Development Units) stretches across the country.

A science master teacher (called SMT) heads each SEDU. He or she is responsible for organizing and conducting the year's training programme at the SEDU and also holds science quizzes, exhibitions etc. The SMT is also expected to make advisory visits to the schools, and to undertake a research and evaluation function.

Issues

In Nepal, most projects, training centres, and physical facilities are set up by the government with foreign grants or loan assistance. During the formative years the government also undertakes a heavy investment programme. Once the project is commissioned, it often becomes apparent that the government grant or budget is not adequate to sustain the program.

Conclusion

Science and technology have conquered distance, bringing the world closer together. Viewed from the angle of ever increasing international linkages, failure to work out an effective coordination with the educational environment of the world, would mean a disastrous shrinkage of educational opportunities.

There is no doubt that the educational system of today has a major bearing on the education system tomorrow. For this reason, foresight is an important element in deciding on the changing patterns of the educational system, a particularly profound vision being closely linked with the national goals of education. These goals shape the destiny of the individual, society and nation. If the education bestowed on a person of today, who stands at the threshold of the 21st century, is out of step with the future, he or she will be left behind forever, the society in which the individual was born lagging behind other societies for want of modernization.

Pakistan

Secondary education is a vital link between elementary and higher education. As a terminal stage it may enable youth to enter the job market. Alternately, it may provide an opportunity to enter into the higher education system. In either case, with the present delivery system, youth remains underprepared. General education does not equip students for the type of work force that is needed for expanding industrial and agricultural economies in Pakistan. Thus, the general school alone is not sufficient to meet the all pervasive needs of the job market. Further, considering the knowledge explosion that has occurred in the social and natural sciences and the imperatives of computer literacy or environmental education, it does not seem possible that the general school will be able to provide vocationalization of any kind.

Addressing these questions, the Education Policy (1992) proposes the establishment of two types of systems of secondary education: the Academic High School, and the Vocational High School, each with 12 years of schooling (higher secondary; HS). It also proposes the shifting of classes XI and XII from colleges to the general schools and vocational schools. It is intended that the vocational school concentrates on agricultural, technical, commercial, and biomedical education, amongst others.

In the third, 5-year plan (1965-70) it was mentioned that education at the secondary level will comprise two stages : (a) secondary classes (IX-X) and (b) higher secondary or intermediate classes (XI-XII). In the Education Policy (1972-80) it was recommended that classes IX and X be part of secondary education and that intermediate education will comprise of classes XI and XII.

It is suggested in the 8th Five Year Plan (1993-98) (which is under implementation now) that the policy of adding classes XI-XII to existing secondary schools that was implemented during the last two plans be further addressed. According to the 8th Five Year Plan, facilities for secondary education will be expanded to absorb an increased output from primary schools. For this purpose, about 2.4 million additional seats in classes VI to X will be created by upgrading primary and middle schools, establishing new high schools and adding classrooms to the existing schools. Construction of additional classrooms and the improvement of existing buildings in schools will also be carried out. In urban areas, a second shift will be introduced in selected secondary schools, wherever feasible. During the period of the Plan, the participation rate at the secondary level will be raised from 50% (in 1992-93) to 55% for boys and from about 26% to 30% for girls.

For qualitative improvement, the existing curricula will be reviewed and reformed, particularly for science and mathematics. Facilities for the teaching of science subjects will be improved through the provision of additional laboratories and equipment and better trained teachers. In addition, a parallel system of vocational high schools will be established for imparting employable skills on an experimental basis and will be expanded if found successful. Skills such as basic accountancy, typing, industrial arts, and agricultural skills will be introduced in selected secondary schools according to the requirements of the local market. Wherever regular technical teachers do not become available, local artisans/skilled persons will be engaged on a part time basis.

The Eighth Plan will encourage the spread of quality education institutions to remote areas of the country. By the end of the Eighth Plan, each district will have a model school for boys and each Division will have such an institution for girls in the public or private sector. The private sector will also be encouraged to establish quality education institutions. The Government will establish model schools only in districts where such institutions do not currently exist under the public or private sector. Efforts will

be made to upgrade the quality of all secondary schools through the provision of better qualified teachers and physical facilities.

At present 5+3+2+2 Years of schooling is required for education at the primary, middle, secondary and higher secondary levels. Usually 5 years of education after primary is considered as being secondary education but there are a number of middle schools from grades 1-8 as well as secondary schools having classes 6-10 and also higher secondary schools from grade 6-12.

Future Plans for Secondary Education

The present Government is initiating the Education Sector Institutional Reform Project (ESIRP), to address the critical issues impeding the quality of Middle and Secondary Education, by introducing and improving:

1. Examination Reform and Assessment;
2. Curriculum and Text-Book;
3. Teacher Training; and
4. Performance Monitoring system through Education Management System (EMS)

Suggestions for the Improvement of Secondary Education

Curriculum be developed/revised to help develop the characteristics of good character, righteous living, patriotism and dignity among youth. Curricula of Madaris will be modified so as to allow the teaching of science and mathematics, and vocational subjects to open up the chances of prosperity for the product of these institutions. Incentives should be given to teachers teaching these subjects.

Academic as well as production-oriented secondary education will be strengthened and its curricula so designed as to offer a wide variety of options to enable students to select subjects of their own choice, that are suited to their temperament and aptitudes.

In order to vocationalize the majority of secondary schools, both in rural and urban areas, and to prepare well-rounded citizens to suit social and economic needs of the nation, two or more elective subjects from a wide range of subjects in industrial arts, agriculture, commerce, home-economics and other pre-vocational, mechanical and technological disciplines will be introduced.

Trade-Technical schools and vocational institutions will be set up mostly in the rural areas to provide training in technical trades to drop-outs from the education system, on completion of class VIII or even earlier. Those not in possession of Class VIII certificate should take a one year preparatory course at the trade school before admission to the regular trade school programme.

A large number of options in the secondary school curriculum will be provided to enable students to select courses suited to their interests and requirements.

On the pattern of the best residential schools in other countries, well staffed and fully equipped schools will be established in each province. Comprehensive/Multi-purpose schools with adequate residential facilities, laboratories, libraries, science equipment, workshops and qualified teachers will be opened to draw residents from areas where particular elective subjects are not available.

Facilities will be provided for the training of teachers in the techniques of teaching, new courses to be provided and special training centres set up by the Federal Ministry of Education. A programme be launched for bringing about improvement in the quality of instruction, school buildings, science laboratories, workshops, libraries, furniture and for the provision of the training of talented teachers.

Scholarship programme will be rationalized to offer more opportunities to the children of low income groups and to meritorious and talented students to achieve post graduate level education.

All efforts should be made by the educational authorities, schools, and communities to provide facilities like classrooms, science laboratories, workshops, libraries, garden plots, playgrounds and equipment in order to help achieve the objective of multi-purpose secondary schools which will provide diversified optional subjects.

Philippines

Introduction

Most of the global development in the twenty-first century will be centered in Asia and the Pacific. The Philippines intends to be among the dynamic newly industrialized countries (NIS) in the region in the coming millennium.

One of the best strategies to become an NIC is through the education of the Philippines' richest resources: its manpower, which is drawn from a population of 67 million.

Cognizant of this, Government has established education and manpower development among its major thrusts. Through effective human resource development, the Philippines can speed up its growth and make good its claim at NIC-hood.

Changes in Secondary Education

Among the many issues confronting secondary education in the Philippines, quality and equitable access have remained critical. Two major changes have been initiated by government, particularly the Department of Education, Culture and Sports (DECS).

The Act Establishing and Providing for Free Public Secondary Education passed by Congress in 1988 provided access to the 5.5 M. secondary school age adolescents without which the majority would not be able to enter high school because of poverty. The Act exempted secondary public school students from paying tuition and other school fees.

The resulting yearly increase in enrolment aggravated the already serious shortage of schoolrooms at the secondary level. In 1991, the School Building Program (SBP) made substantial contribution to help overcome the schoolroom shortage. Under the program, DECS administered the construction of the school buildings. It was able to construct schools and workshops, and to rehabilitate those destroyed by typhoons, earthquakes and pests. By 1992, it constructed 8,351 structures, exceeding its target.

What makes the SBP unique is the spirit of "*bayanihan*" or cooperation among the school officials, parent-teacher-community associations and non-governmental organizations. In some instances, parents

helped defray the labor costs or donated land sites for the school buildings.

Government has also taken initiatives to improve the quality of secondary education. The most significant among these is the Secondary Education Development Project which culminated in the implementation of the New Secondary Education Curriculum (NSEC) in 1989.

The NSEC was envisioned to address quality deterioration in secondary education which was observed as early as the seventies in the form of low achievement rate, poor mathematical skills and a decreasing literacy rate.

The NSEC was conceptualized based on these premises:

(1) Secondary education is the continuation of basic education which starts in the elementary school.
(2) With better quality inputs from an improved elementary school and a more efficient secondary school programme, the number of years of schooling does not have to be extended.
(3) Permanent general knowledge (such as numeracy and communication skills) rather than specific occupational skills are provided in secondary education. It will qualify the school leaver for entry into available jobs, for acquisition of specific skills needed for work through on-the-job training and/or higher education.
(4) Work opportunities that will generate income and help the students financially may be offered by the school without sacrificing quality in the academic area.

The NSEC underwent a long process of development from inception to full implementation. Initially, a series of national multi-sectoral consultations with stakeholders was conducted to discuss issues and concerns in secondary education. Research was done to address the issues more clearly. Among others, inputs from the national consultations and research issues served as bases for the NSEC.

Curriculum writing workshops were conducted to prepare the "Expected Competencies of Filipino Secondary School Students/Graduates" and curriculum guides.

There were three hearings conducted to streamline the framework of the new curriculum. A macro-tryout was done from 1985 - 1989 in 78 schools areas in the 14 regions of the country. In every sample school, two classes using the NSEC and the old curriculum were compared. The results showed that the NSEC was more effective but revealed weaknesses that were revised prior to its implementation.

The NSEC was finally implemented in June, 1989. A monitoring arm was instituted to oversee its nationwide implementation. Massive teacher and management training was conducted from 1989 - 1992. Instructional materials and textbooks were simultaneously prepared.

A project monitoring evaluation study was initiated in 1989 is look into the educational outcomes of the NSEC. The results, so far, have been very satisfactory. Indicators have shown improvement in student achievement, school management, school performance, etc. The evaluation of the entire curriculum reform was expected to have been completed in August, 1995.

Impact of Changes

Access to secondary education was partially addressed by DECS through the establishment of

schools in identified priority school-less "*barangays*" (villages) and the completion of incomplete ones. The SBP had a total appropriation of P4.16 billion. In 1994, 1,006 classrooms or 56.13 per cent of the 1,790 classrooms targeted for the secondary schools were constructed. Currently, there is an inverse proportion in the number of private and public schools in the country. There are more public secondary schools where there are fewer private ones. Significantly, the areas where there are fewer private schools are the more economically deprived places where public education is an imperative for the poor families who otherwise cannot afford to send their children to school.

In spite of the increase in the number of school buildings, the SBP cannot keep up with the ever increasing enrollment. This has caused overcrowding in the classrooms or splitting of regular classrooms into two which does not promote an efficient teaching-learning environment.

The introduction of the NSEC was intended to improve learning outcomes. The Sectoral Appraisal Report estimated that the mean achievement would increase from the baseline level of 45% in 1988-1989 to 70% in 1993-1994. A study on student achievement revealed higher achievement of students under the NSEC. Mathematics showed the lowest mean while science was slightly higher. While the continuous improvement for student achievement does not meet the learning norm of 75%, it shows that NSEC is more effective than the old curriculum and can improve the quality of secondary education.

Performance indicators show a big improvement from baseline levels in 1989 before the NSEC. Enrollment rate increased to 4.76 (from 3.6), participation rate, 58.92 (from 56.09), achievement rate increased to 60.0 (from 45.0) textbook-student ratio increased to 1:1 (from 1:7) and student-teacher ratio stabilized to 1:56 (from 1:30).

Key Issues for the Improvement of Secondary Education

(1) In spite of its being greatly improved, the NSEC's highly academic orientation inadequately prepares the school leaver/graduates for employment after high school. But even if it did, the student/graduate would still be too young to enter the labor force.

Government needs to assess its stand on a four-year secondary education. While it may seem cost efficient the poor marketability of the graduates, who do not proceed to college, is counter productive.

(2) The bilingual policy of using Filipino and English as mediums of instruction has resulted in students who are neither proficient in Filipino nor in English. Research has shown that students comprehend better when Filipino is used. It is also a major instrument to promote nationalism and develop national identity and pride. On the other hand, facility in English has made the Filipino highly competitive in the global labor market. What should the medium of instruction be?

The two major reforms discussed are only two of the many government attempts to address issues of access, equality and quality in secondary education. The task is far from being accomplished and there are many more problems and concerns to address. A greater task ahead for the Education sector is how to respond to the challenge posed by President Fidel V. Ramos to the entire nation: to prepare the Philippines to be a tiger economy in Asia in the year 2000. Can secondary education respond to the challenge?

Republic of Korea

Background of Educational Reform in Korea

The Korean Government has been preparing educational reform proposals for the 21st century by establishing the Presidential Commission on Education Reform (established in February 1994) which will exist until February 1998. The Commission presented the 2nd comprehensive report of "Educational Policy Tasks for Setting Up the New Education System" to the President in May, 1995. The main ideas concerning secondary education reform contained in this paper are from the Report, which deals with the restructuring of the whole education system.

The long-term vision of education reform is to establish EDUTOPIA, (which is a combination of education and utopia) that is, an Open Education Society or Lifelong Learning Society, in which everybody can learn whatever he or she wants to learn without the limits of time and space.

In setting up the goals and directions of education reform for the 21st century, we have to figure out what the future society will be like. It is said that future society will be characterized by information, globalization, and localization. These changes, which are already at hand, are requesting that education be reformed radically.

Changes in Secondary Education

Two key changes currently planned for secondary education are the reform of school management and curriculum reform. Both changes are intended to improve the quality of student learning. Under the rather uniform style of school management and curriculum, students have not been adequately served in an educationally appropriate way. School principals have monopolized the power to manage schools, which should be shared by the so-called "school community" composed of concerned interest group. Meanwhile, it is felt that students should have their say in choosing the subjects they want to learn at school.

Reform of School Management

- In October 1994, School Steering Committees began to be organized at some national or public primary and secondary schools to help revitalize school management initiated by "school community", this idea being to strengthen the relationship between school and community. Committees consist of the principal, teachers, parents, community resource persons, representatives of alumni, and educational specialists. The Committee is supposed to deliberate on such matters as budget and balancing accounts, elective objects and extra-curricular activities requiring extra expenditures, and the School Charter which regulates the operation of the school. The Committee also operates a Principal Recommendation Committee and Teacher Recommendation Committee, decides on matters about School Development Fund, and takes charge of matters relating to community donations. In addition, the Committee may give advice to the principal on other matters related to the operation of the school. In the case of private schools, however, the establishment of this Committee is recommended, rather than legally required, its function being to give advice to the principal.

- The "Invitation of Principals" will be tried out in 1996 at the Provincial Superintendents' discretion to enable each school to find a principal who best suits the situation of the school. The Principal Recommendation Committee whose members are proposed and decided by the School Steering

Committee will take charge of this matter. Now all public school principals are appointed by the Provincial Offices of Education.

The principal appointed through the Public Invitation of Principal may invite 20% of the full quota of teachers who are needed for operating diversified and specialized educational programs. In case of schools which do not have a policy of Public Invitation of Principal, the School Steering Committee takes charge of this matter. This new policy will also be tried out through a model case, at the discretion of the Provincial Superintendent, from 1996.

Improvement of School Curriculum

- Compulsory subjects are to be reduced and electives increased in the secondary school curriculum. This enables students to choose a variety of electives according to their aptitudes and abilities, and more power to decide curriculum ought also to be delegated to individual schools.

The number of common compulsory subjects in upper secondary schools will be reduced and the level of difficulty of these subjects adjusted to that of the 1st grade. While courses for the 1st grade consist mainly of compulsory subjects, those for the 2nd and 3rd grades focus on electives. To enable this scheme to be effectively implemented mobile teachers, part-time teachers, school-industry double-appointed teachers, and double-majored teachers are crucially needed.

- In order for students to receive an education that fits their learning abilities, "curriculum by level" is designed and operated for subject areas such as Korean Language, Mathematics, and English where variations in students achievement is relatively large.

- The current academic records system, which gives each student's rank in the school he or she is enrolled in based on the total sum of achievements of all the subjects taken, will be changed to a "New Comprehensive School Records System" from March 1996. The New Comprehensive Records System contains achievement scores and rank by subject area; and it also describes student's specific abilities by subject area, status of attendance, extra-curricular activities, community volunteer work, group activities, certificates, prizes and awards, personality and behavior. The New Comprehensive Records is used as an essential tool to decide admission to national or public colleges.

- Instructional methods for foreign language teachers have been changed from a grammar-oriented to communication skill-oriented system. The relative importance of communication skill is increased in the school evaluations as well as in the College Scholastic Aptitude Test. As proof of this approach, English teachers are recommended to only use English in an English class. In addition, native speakers are employed as much as possible to teach foreign languages. In-service training abroad for foreign language teachers has been expanded to enhance their teaching capabilities, while a foreign language ability evaluation system has been introduced for foreign language teachers.

Impact of the Changes

It is not yet possible to identify the impact of these change upon secondary education in Korea, since they are still underway. The only thing that can be said at this stage is that it is not at all easy to make changes in education, although many strategies are being used to try and achieve successful implementation.

With regard to the reform of school management, a step-by-step implementation strategy is employed, several model schools being selected in each province to gradually introduce School Steering Committees. In addition, workshops and training programs have been operated for the members of School Steering Committees, which focus on their roles and the rationale for introducing the School Steering Committee. Notwithstanding, it is expected that there will be some difficulties in introducing the School Steering Committee due to opposition from the School Principals Association, from Teachers Association and due to reluctant participation on the part of some parents.

The reform of school curriculum is also not easy, since many interest groups are involved in the reform process. Professors in subject matter areas and teacher associations for each subject area tend to argue the importance of their subject matter, which may make it difficult to reduce the number and size of compulsory subjects. Even though most people agree with the general principle of reducing compulsory subject and increasing compulsories and increasing electives, they do not like to see the change of their subject area from compulsory to elective.

It is another problem to have an adequate number of teachers to offer many electives in a school, even if success is achieved in coming to a decision about reducing the range of compulsory subjects. To achieve the flexibility in staffing, to employ more part-time teachers and more double-majored teachers, and to provide short-term retraining programmes for teachers to obtain additional certificates to teach other subject matter.

Key Issues for the Future Improvement of Secondary Education

More attention needs to be paid to vocational and technical education at the secondary school level, the curriculum of vocational and technical education being made more practical by including contents on such area as information management, document and file management, communication skills, and occupational consciousness. The curriculum of vocational high schools should also be more field-oriented. In addition, the Credit Bank System, which can interrelate the programs of various vocational and technical institutes such as technical high schools and Job Training Centers, should be introduced. Appropriate data and information about the link between education and employment should also be provided to ensure effective career education in schools. In-service training of career education teachers should also be strengthened, and various career education programs relevant to the developmental stages of students should be systematically developed.

A second important area is the need to change teacher preparation and in-service training programmes, the aim being that in the long run all the new teachers should be produced from Graduate School. During a phasing in period , all new teachers for high schools can be trained in Graduate School. In terms of forward planning, double-majored teachers will be in great demand in the future, more subject teachers will be teaching in primary schools, and the number of electives in the secondary curriculum will be increased.

The periodical in-service training of teachers such as every 5 years will be required to improve continuously teachers' professionalism. Teachers will choose in-service training institutes according to their purposes, distance in-service training for example, using multimedia to increase the positive effects of training.

A third consideration is that the evaluation of schools needs to be strengthened with the result of

such evaluation being open to the public, and being linked to the financing of schools. One outcome of the measure can play a key role in enhancing the quality of education through encouraging competition amongst schools. The results of the evaluation of schools should form a database that is available to administrators, teachers, and parents and students.

Concluding Remarks

Educational reform is a kind of political process, with the political party which has the power tending to use education for their own political purposes. Also various interest groups in education want to have their own voice during the educational reform process. In such a tug-of-war, educational reform may lose its best direction for providing maximum service to learners. Educational policy researches should therefore try to keep an eye on what is happening in the turmoil of educational reform and coordinate directions in a way which is appropriate for the betterment of education.

Educational reform in Korea proposed and implemented can be seen to be the products of a bargaining process among the various vested interest groups: that is, the political party in power, educational experts, educational administrators, teachers, and parents. Key features developed for education reform are:

- Learner-Centered Education: Education, which is operated for the convenience of suppliers such as the educational administration, schools and teachers should be restructured to better reflect the needs and demand of learners in the process of teaching-learning. The school choice of parents and students should be used to enhance the quality of education through encouraging competition amongst the educational programs of educational suppliers.

- Diversification of Education: Breaking from the traditional situation where a uniform education is provided, diverse educational programs and schools should be introduced so as to allow individuals to develop their potential faculties, creativity, and personality.

- School Management Based on Autonomy and Accountability: The principle of school management should be changed from that of centralized regulation and control to that of autonomy and accountability. There should be an opportunity for parents, community resource persons, and teachers to participate cooperatively in the operation of schools.

- Harmony of Freedom and Equality: Freedom should be guaranteed to enable every learner to develop his or her latent capabilities to the maximum. The educational system should also pay attention to the educationally disadvantaged in order to realize the value of equality. By balancing the values of freedom and equality, excellence in education can be obtained.

- Effective Use of Information Technology: A lifelong, open education system should be established so that anybody can learn whatever he or she wants to learn without the limits of available time and space through the effective use of multi-media information technology.

- Quality Education: The quality of education should be improved by carrying out an objective evaluation on schools, teachers and students, by providing reliable education finance, and by operating service-oriented educational administration.

Sri Lanka

The Education System in which Secondary Education forms a part of is free up to the end of undergraduate University Education. There are also schemes to support children in their schooling, such as free textbooks being provided from Grade 1 up to Grade 11 while all children from Grade 1 up to Grade 13 receive free school uniforms.

According to Law, the state is the provider of education for children from the age of 5 years to 14 years. Some private schools are allowed to function but they must conform to the National Curriculum. Of late 'International Schools' have been established, which prepare Primary and Secondary level children for British Examinations, but it has been proposed that their operation be limited to educating children above the compulsory school age.

Secondary Education covers the Grades from 6 to 13, children ranging in age from 10+ to 18+ years.

Pupils are expected to leave Secondary Education at one of the following points:

- at the end of Compulsory Education: that is, at the age of 14+ years (in phase 1) and at the age of 16+ years (in phase 2);
- at the completion of GCE Ordinary Level: that is, at the end of the common curriculum; and
- at the completion of GCE Advanced Level: that is, after specialization in one of the streams - Arts, Commerce, Science.

It has been noted that children, especially in urban areas remain in school up to the last stage because of a shortage of jobs that match their personal preferences regarding employment.

Non-formal Education caters to those who have not been admitted to Primary School or have dropped out. Special Education is provided for those who have impairments although at times some children with impairments have entered normal schools and even obtained postgraduate education.

Regulations for Compulsory Education will be put into effect in 1996. These will provide the legal basis for measures that will be adopted to motivate and support children to attend school rather than punishing parents who do not send their children to school.

About 3% of the children of an age cohort receive scholarships at admission to Grade 6. The Scholarship Scheme (which was intended to support children in need) has now become largely means of admitting the more 'able' children to the most popular schools for Secondary Education.

Changes in Secondary Education

1.(a) The provision of educational facilities, access and participation has reached a plateau stage during the past decade. The significant thrust during the past five years has focussed on the improvement of opportunities for education in the disadvantaged areas, especially in Science, Mathematics and English. Special projects have also been initiated and are underway to improve the facilities and teacher competence in the Plantation Sector which contains largely a Tamil population of recent Indian origin.

(b) An improvement of resources for the teaching and learning of English including the availability of trained teachers, has had an impact on Secondary Education in that it has increased the number of secondary school leavers who are confident in the use of English.

2. A revision of Curriculum for the GCE Advanced Level has been completed, the new curriculum now being in operation. Work has also started on the revision of the GCE Ordinary Level Curriculum. The aim of this curriculum revision is; to update content to match contemporary needs; and, to ensure that the children receive a well-rounded and comprehensive education while as the same time not being overly burdened with work.

3. The Department of Examination conducts all public examination related to Secondary Education. A program is currently being planned to improve the assessment of pupils especially with a view to: giving a more significant role to classroom and school based assessment; improving test instruments and practices; and developing the manpower necessary to enable the establishment of Testing Centres at strategic locations throughout the country.

4. A detailed project is being formulated for the improvement of Teacher Education, which will have a direct impact on Secondary Education. Teacher Education faculties that are being planned will help increase the areas of specialization of secondary school teachers in more than one discipline. The project will enable all teachers who are recruited in the future to be given both an adequate pre-service training and also in-service education. Teachers are expected under the new scheme, to update their knowledge and skills regularly in order to meet promotional requirements.

Impact of Change

It is too soon to comment in detail on the impact of the types of changes explained above since the official school census data of recent years has yet to be processed. However, it can be observed that over the past three years the trend has been for the number of secondary school leavers eligible for entering Higher Education to increase. As a result, the Universities and Advanced Technical Education Institutes are being pressured to increase their intake although their facilities are inadequate to enable them to educate larger numbers.

The Future Improvement of Secondary Education

(i) Introduction of practical skills learning to the Secondary Stage: This is intended to help pupils in Grades 6, 7 and 8 to change their attitudes through exposure to '*making*' and '*doing*' activities, as a contrast to academic activities. Secondary schools will have activity rooms which provide the basic equipment and resources of a practical nature. There will also be school garden plots. The children will be encouraged to participate in activities according to their interests; activities being clustered around major themes such as food, clothing, shelter, health, organization and aesthetics.

(ii) Introduction of pupil guidance and counseling to secondary school: This is designed to help children to identify and develop their strengths, in order to select advantageous strategies for personal advancement.

It is found that parents are generally unable to guide and counsel their children in their educational development, personal problems and their choice of a future career or vocation. Therefore teachers will

be made ready to provide assistance in meeting this very important need through appropriate seminars and distance learning modules. Each school will be helped to maintain a base of information about career opportunities in both the public and private sectors.

(iii) Changes in the structure of the curriculum: Changes have been made to introduce content in three important areas. These being: first, core competencies that are common to all children in the country, including the mother tongue, English, Religion, Mathematics (at one of three levels) science and social studies; second, competencies that are relevant to the social and economic activities of the locality of the child, including competencies related to the ecology of the locality in addition to global concerns which affect it; and, third, competencies related to the personal life and development of the child and his family, this being intended to nurture the all round and balanced development of each child.

(iv) Introduction of a fourth stream of 'Technology' to the Advanced Level Curriculum: This has been done to enable the children who leave after Advanced-Level to be more trainable for work that involves a comprehensive content of knowledge and information. Technological subjects will have a common core with additional sections being added as required to cover applications which are relevant to the country. These changes are that the Advanced-Level stage will break from the strict streaming of the past. Pupils will be allowed to follow subject combinations that are more advantageous and are better matched to meet their potential, and the Advanced Level Examination will no longer be the main basis for selecting candidates for Higher Education.

Thailand

From Sukhothai, the ancient capital, to Bangkok, the present capital of Thailand, Thai Education depended on the monks as teachers. In B.E. 2414 (1871), Thai Education was rearranged to involve formal education, during the reign of King Rama V, who first founded "The Royal Page School" in the Grand Palace. This school because the first formal and official educational institute in Thailand.

After the National Educational Scheme was changed, it became the B.E. 2503 National Educational Scheme (1960), with the educational system of 4:3:3:2 (3), namely: Lower Elementary Education (4 years), Upper Elementary Education (3 years), Lower Secondary Education (3 years), Upper Secondary Education (2 years), and Vocational Education (3 years). This twelve-year educational system had implications for the reorganization of the curriculum: the B.E. 2503 Primary School Curriculum (1960), the B.E. 2503 Lower Secondary School Curriculum (1960), the B.E. 2503 Upper Secondary School Curriculum (1960), and the B.E. 2506 Vocational School Curriculum (1963).

The B.E. 2503 School Curriculum (1960) had been occurred managed for 15 years before it was reformed again. A lot of problems were found with this curriculum such as the content of the curriculum did not respond to the needs of students and to those of the different localities, the content being largely for students who wanted to further their own study in a college or university. The textbooks were out-of-date and unsuitable for many localities, and in addition students had to learn the lessons by heart, not using their full ability to solve the problems confronting them. All of these shortcomings made it necessary to improve both the B.E. 2503 National Educational Scheme (1960) and the B.E. 2503 School Curriculum (1960).

The B.E. 2520 National Educational Scheme (1977) was written for the school system of 6:3:3 namely: Elementary Education (6 years), Lower Secondary Education (3 years), and Upper Secondary

Education (3 years). This B.E. 2520 National Educational Scheme (1977) was compelled to the school in B.E. 2522 (1979).

The Secondary Education in the National Educational Scheme (1977) said that "Secondary education aims at providing the learner with knowledge and working skills suitable to his age, needs, interests and aptitude. Each individual will then be able to comprehend and select work which will be useful both to himself and to society."

The Secondary school curriculum in Thailand is divided into 2 levels, namely: Lower secondary school curriculum, and, upper secondary school curriculum.

The basic content of the Lower Secondary education curriculum is as follows: Thai Language, Science, Mathematics, Social Studies, Physical Education and Art Education; while the basic knowledge of the Upper Secondary education curriculum is: Thai Language, Social Studies, and Physical Education.

The basic education framework in (1977) sought to promote the development of learners in both basic knowledge and in learning process as follows:

1. Basic knowledge: Thai and Foreign Languages, Mathematics, Science, Technology and Career, Social Studies, Art Education, Quality of Life Development, and Character Development;

2. Learning process and skill: Abilities in communication, calculation, studying data, Analyzing and Synthesizing, problem solving and management, living and working with others.

This part comprises important knowledge provided for every students as being the basic knowledge theory, principles, local intelligence, technology, and learning process for developing the individual quality of life. The knowledge involves life long studies and is integrated into all aspects of life.

From this framework the learners undertake compulsory study for 9 or 10 years when they graduate from secondary schools they should: have basic skills in life with regard to Thai language, be able to understand and use high technology, be able to adjust the learners to adjust themselves to other people, have better life options, enable learners to fully develop their learning potential, and have the ability of self direction, and self control, which will gradually become self discipline.

Uzbekistan

Introduction

The social policy of the Government of Uzbekistan in the sector of education is central to human resource development, as the level of education is inextricably linked to the well-being of the population. Uzbekistan has a relatively high level of education and a highly developed scientific base. Both in urban and rural areas, both boys and girls have universal access to free basic education.

It is very important to maintain the achievements of the past during the transitional period, and to improve the education system according to market economy principals. To do so will necessitate the mobilization of new sources and methods of financing the education system. More of the financial burden will be shifted to students and their families, and assistance will be more targeted to those

students and institutions in terms of both merit and financial need.

The governments of both the former USSR and independent Uzbekistan have put a high priority on providing public education to the country's citizens. Public expenditure on education was 11.1% of GDP in 1993, which is relatively high by international standards. The results of this public investment have been impressive, with average number of years of schooling among the adult population being 10.9 years while over 97% of the population is literate.

According to the Constitution, all citizens of the Republic, irrespective of race, social position, sex, nationality or religion, have equal rights to education at all educational levels. Education is not only an end in itself (because it enlightens people and enhances their capabilities), but it also has instrumental value in preparing people to contribute to the national economy. Human resources are an economy s greatest resource, and formal education plays a key role in preparing people for productive employment.

Uzbekistan governmental policy considers the total renovation of the state educational system - which is a primary sphere of socio-economic, spiritual and cultural development - as being imperative for Uzbekistan's development as an independent state.

General Education

Central to the education in Uzbekistan are the general education schools, of which there are 8,745 day schools with approximately five million (4,639,900) pupils, and a network that grows as the population increases. The Ministry of Public Education stimulates the formation of new types of schools such as lyceums and gymnasiums, and also schools with in-depth instruction in particular subjects, and the introduction of new studies like economics, law, ethics (*adabnama*), and ecology. More than 60 lyceums and gymnasiums are in operation, along with lyceum and gymnasium-type classes (in standard schools). Regulations for licensing, certification, and accreditation of these new types of schools are in preparation.

The Ministry also stimulates the development of new content and pedagogical research in more than 100 approved experimental centers throughout the republic.

Great strides have been made toward the goal of defining a "national character" for the schools of Uzbekistan. In accordance with the Ministry's program Basic Directions in the Development of Public Education in the Republic of Uzbekistan, new concepts have been approved for preschool, secondary general, and extracurricular education. Schools are to be provided with new syllabi, and curricula, teaching and methodological materials that take into account national-historical traditions as well as the rich experience of mankind. A special place in the study programme is reserved for the study of the Uzbek language, the old Uzbek written language based on the Arabic script, the history of the peoples of Uzbekistan, and western-European languages along with eastern groups including Turkish, Arabic and Hindi.

To overcome deficiencies of the previous system and better meet the needs and desires of various groups, the new Law on Education allows the Ministry flexibility and mobility to take real steps toward achieving the educational goals in Uzbekistan according to the world educational standards. In the last two years, more than 50 new programs and over 20 textbook manuscripts have been prepared, which include most subjects in the curriculum of basic and secondary schools.

In planning for the structural change of state-run general education schools, substantial attention is being given to the so-called horizontal formation of the school, in order to distinguish independent stages of education: primary (1-4), basic (5-9), and secondary (10-12) grades. This permits a better direction of the pedagogical process and fuller mobilization of resources.

Strategy for Education

The Government has taken measures to reform the education system, but conditions are still deteriorating, and demands upon the system are steadily increasing as the numbers of students rise. The erosion of human and physical capital will also be very difficult to reverse if it is allowed to continue for too long, and so it is imperative to take extensive remedial measures now. Reform in educational financing should be target at:

- reallocating resources from the recurrent to the capital budget, to meet sustainable needs in school buildings, equipment, teaching materials and textbooks;
- extending the system of contract training of specialists in tertiary and specialized secondary schools, thereby tapping enterprise resources to train students who undertake to fill the staff needs of the sponsoring enterprises.

Education in Uzbekistan is financed from the state budget. The national budget finances higher and specialized secondary establishments and vocational schools, while Municipal pre-school and general education schools are financed through local government budgets.

The disruption of the economy that has occurred during the transition period, and the ensuing financial difficulties, have created a number of new problems that require urgent attention, these being

- The birthrate is increasing, so that in the next six years the education system will have to accommodate a considerably higher influx of children in elementary schools.
- A growing number of students are excluded from specialized secondary and tertiary institutions which affects their ability to secure jobs. Students leaving junior secondary school are the hardest hit by rising unemployment, some of them not being even legally able to work until they are 16 years of age.
- There is a growing shortage of teachers, particularly for foreign languages, Russian language and literature, and physics and mathematics. As a consequence the quality of education has deteriorated in these areas.
- The shortage totals 20.000 in general education schools and 3.000 in pre-school.

Conclusion

Uzbekistan continues to place high priority on maintaining the high level of the education provided for its people, but severe financial constraints and the reform of the educational system pose major challenges. The people of Uzbekistan are the largest productive asset of the economy, their level of education being relatively high given their average level of income. But this level of educational

achievement (this stock of human capital) is in danger of being significantly lowered or depleted. Such an outcome would adversely affect prospects for development for decades to come.

At the same time, the educational system can be operated more efficiently. The remuneration of teachers should be raised in order to overcome the shortage of qualified teachers. Shares in the educational budget of teacher salaries, infrastructure, and textbooks and materials are too small, while the share of student subsidies is too high.

The high population growth rate of the Republic signifies that a large influx of students into the educational system can be expected in the foreseeable future. In view of the shortage of funds, the Government cannot be expected to continue liberally financing education. But it also cannot afford to discontinue providing quality education to its citizenry. Since benefits to the whole society are simply too substantial to be ignored or reduced. Because of the positive externalities enjoyed by society at large, public investment can achieve a more efficient allocation of resources than private investment.

Viet Nam

Changes in Secondary Education

Over the past five years there have been many reform initiated in secondary education. Lower secondary education has been expanded, and upper secondary education has been diversified with streams to cater for 40 % the 15-17 age group (2.4 million people), with a strong emphasis on technical and vocational education. Such reforms have been initiated to improve equity and access, and to harness national resources more effectively.

The number of trained workers in sectors such as technology, construction, finance, banking, insurance, law, management and informatics is expected to increase substantially in coming years. The qualitative improvement of foreign languages training for workers to meet requirements of an open economy needs to be secured.

In coming years, great effort will be concentrated on enhancing the quality of education. The on-going redefinition of objectives, contents and curricula should be conducted under careful monitoring of methods and organizational arrangements. Special attention should be paid to teaching methods and their evaluation. Vietnam can take advantage of international achievements in education and science and technology when designing and implementing the education and training renovation of the country.

Another important consideration in the quality of education and training in the years to come is its relevance to the needs of the country's industrialization and modernization. International and regional standards should be taken into account in defining qualitative objectives for human resource development.

In order to create realistic conditions for closing the quality gap in education and training during the next 5-10 years, financial priority and special facilities must be given to selected schools which will function as center of excellence aiming at building up the whole system. It is hoped that these schools (10-15 % of the sector) will reach the standards of the best institutions in the region and gradually those of the world. While these school will help to improve the quality of neighboring institutions, they should continue to enhance their own quality. It is hoped that, through this process, most schools will reach the standards of the best institutions to the region by the year 2010. The same objective will be pursued in

higher education with the aim of attaining regional standards by the year 2000.

Impact of the Changes

Student numbers in informal classes and short courses on informatics, foreign languages and vocational training have risen rapidly. There have been significant achievements in illiteracy eradication and the universalization of primary education.

The education and training system has been restructured to be more comprehensive, diversified, flexible and compatible with the market economy and education and training systems throughout the world. The network of general, professional, and higher education was reorganized so as to allow effective utilization of teachers and infrastructure.

The use of schoolrooms in three shifts has been gradually reduced, and additional modern schools have been constructed. Great efforts have been made to improve school maintenance and for the better provision of learning aids such as laboratory equipment, and computers.

The consolidation and expansion of education and training opportunities in ethnic minority and in remote areas have achieved positive results through the construction of boarding schools.

Key Issues for the Future Improvement of Secondary Education

Major priority issues that still need to be addressed include the following:

a) Teacher development and motivation. Teachers' salaries should be determined according to performance, professional skills, expertise, and creative capacity. At the same time, attention should be given to encouraging teachers to work in under-developed areas.

b) Cost sharing. The main responsibilities of the government are to support the poor, and less developed geographical areas, take care of poor but gifted students, and to ensure conditions in which all people can attain the minimal level of primary education. Because of financial constraints in the public sector, it will be necessary to encourage cost sharing by public and private enterprises, and to further involve parents in assisting with educational development.

c) Investing in the training of educational experts. Creating a corps of high level specialists in education research, planning and management with expertise in both theoretical and practical aspects of their field is a key issue for accelerating the renovation of the education system in Vietnam. This core group of specialists is needed to play a leading role in research, innovation and policy elaboration from the macro to the micro level.

Concluding Statement

Education and training is one of the highest national priorities in Viet Nam. Investment in education is considered as one of the principal directions for investment for development. To date, the country has been successful in attempting to obtain maximum use of very limited resources. However, much more needs to be done, especially in response to the challenges opened up by the moves to a more market-based economy.

Annex III: List of Group Members

Working Group A:

Dr. A. Rex Kerrison (Australia) - Rapporteur
Prof. Hasan Waiz (Bangladesh)
Mr. Wang Chang Pei (China)
Mr. Siskandar (Indonesia)
Dr. Abbas Sadri (Iran)
Dr. Katsuhiko Shimizu (Japan)
Mr. Eiji Kikuchi (Japan)
Mr. Vithasay Sisavang (Lao P.D.R.)
Dr. Wan Chik Rahmah Wan Din (Malaysia) - Chairperson

Working Group B:

Mr. Kazuo Ishizaka (Japan)
Mr. Lohani Shambhu Prasad (Nepal)
Mr. Bashir Ahmad Chaudhry (Pakistan)
Dr. Leticia Peñano-Ho (Philippines) - Rapporteur
Dr. Jae-Woong Kim (Republic of Korea) - Chairperson
Prof. Chandra Lakshman Vaidyaratna Jayatilleke (Sri Lanka)
Mr. Senee Pitakannop (Thailand)
Mr. Abdusalom V. Umarov (Uzbekistan)
Mr. Komiljon K. Karimov (Uzbekistan)
Dr. Vu Quoc Anh (Viêt Nam)